TABLE 42

LIVESTOCK AND ANIMAL PRODUCTION, NEW CASTLE AND KENT COUNTIES, DELAWARE 1879-1880

(SOURCE: US. BUREAU OF THE CENSUS 1883: 146)

Counties.	LIVE STOCK ON FARMS JUNE 1, 1880.							Wool, spring clip of 1880.	DAIRY PRODUCTS.		
	Horses.	Mules and asses.	Working oxen.	Milch cows.	Other cattle.	Sheep, exclusive of spring lambs.	Swine.		Milk sold, or sent to butter and cheese factories in 1879.	Butter made on farms in 1879.	Cheese made on farms in 1879.
	Number.	*Number.*	*Number.*	*Number.*	*Number.*	*Number.*	*Number.*	*Pounds.*	*Gallons.*	*Pounds.*	*Pounds.*
The State	21,933	3,931	5,818	27,284	28,450	21,967	48,186	97,916	1,132,434	1,876,275	1,712
Kent	7,332	1,415	913	7,275	6,210	6,297	11,830	20,425	89,972	419,312	362
New Castle	8,438	854	612	13,036	7,451	7,795	11,978	36,796	938,867	1,072,250	

TABLE 43

LIVESTOCK AND ANIMAL PRODUCTION, NEW CASTLE AND KENT COUNTIES, DELAWARE 1889

(SOURCE: US BUREAU OF THE CENSUS 1896: 240, 280, 321)

COUNTIES.	NEAT CATTLE ON FARMS JUNE 1, 1890.				Milk produced on farms, 1889. (Gallons.)	Butter made on farms, 1889. (Pounds.)	Cheese made on farms, 1889. (Pounds.)
	Total.	Working oxen.	Milch cows.	Other cattle.			
The State	51,844	3,846	32,574	15,424	10,699,362	2,028,498	359
Kent	15,220	675	9,067	5,478	2,637,552	673,226	55
Newcastle	22,536	383	16,329	5,824	6,316,676	941,096	200

	ON FARMS JUNE 1, 1890.				SHORN FALL OF 1889 AND SPRING OF 1890.	
	Total.	Merino fine wool (one-half to full blood).	English breeds, long or medium wool (one-half to full blood).	All other.	Fleeces.	Pounds.
The State	12,265	2,518	1,999	7,748	10,731	47,231
Kent	2,840	403	442	1,995	2,451	12,[illegible]
Newcastle	5,187	1,514	829	2,844	4,248	21,947

COUNTIES.	Horses, June 1, 1890.	Mules, June 1, 1890.	Asses, June 1, 1890.	Swine, June 1, 1890	Swine consumed, 1889.	Domestic fowl (chickens), June 1, 1890.	Turkeys, June 1, 1890.	Geese, June 1, 1890.	Ducks, June 1, 1890.	Dozens of eggs produced, 1889.	Pounds of honey, 1889.	Pounds of wax, 1889.
The State	25,656	4,790	29	44,981	29,076	900,212	70,578	10,525	50,046	2,218,754	66,468	1,612
[illegible]	8,622	1,771	6	14,966	10,398	337,082	28,534	4,510	26,285	584,398	20,210	385
Newcastle	9,981	740	8	14,569	7,761	168,080	12,113	1,172	12,926	579,831	11,483	245

TABLE 44

LIVESTOCK AND ANIMAL PRODUCTS, NEW CASTLE AND KENT COUNTIES, DELAWARE 1899
(Source: U.S. Bureau of Census 1902: 424-425, 594)

COUNTIES.	Number of farms reporting dairy products.	Value of all dairy products.	Value of dairy products consumed on farms.	MILK.		CREAM	BUTTER.	
				Gallons produced.	Gallons sold.	Gallons sold.	Pounds made.	Pounds sold.
The State	7,689	$1,092,807	$327,955	12,681,268	4,988,462	14,717	1,629,949	1,075,921
Kent	2,361	244,684	112,925	3,380,345	741,552	80	533,260	312,907
Newcastle	1,898	677,400	102,375	7,035,155	4,105,742	14,229	675,948	541,256

COUNTIES.	Number of farms.	DOMESTIC ANIMALS.		NEAT CATTLE.							
		Number of farms reporting.	Total value.	Calves under 1 year.	Steers 1 and under 2 years.	Steers 2 and under 3 years.	Steers 3 years and over.	Bulls 1 year and over.	Heifers 1 and under 2 years.	Dairy cows 2 years and over.	Other cows 2 years and over.
The State	9,687	9,511	$3,733,335	9,363	1,042	970	1,321	1,654	5,373	32,591	1,866
Kent	2,814	2,813	1,122,094	2,998	301	210	213	472	1,644	9,842	838
Newcastle	2,088	2,044	1,465,184	3,739	223	156	146	992	2,539	15,839	457

COUNTIES.	HORSES.			MULES.			Asses and burros, all ages.	SHEEP.			Swine, all ages.	Goats, all ages.	Received in 1899 from sale of live animals.	Value of animals slaughtered on farms in 1899.
	Colts under 1 year.	Colts 1 and under 2 years.	2 years and over.	Colts under 1 year.	Colts 1 and under 2 years.	2 years and over.		Lambs under 1 year.	Ewes 1 year and over.	Rams and wethers 1 year and over.				
The State	1,590	1,903	26,229	107	289	4,349	15	4,801	6,360	604	46,732	143	$396,264	$424,400
Kent	637	709	8,692	41	102	1,405	12	1,144	1,872	300	13,571	21	129,393	120,794
Newcastle	620	761	9,149	41	42	414	2	2,135	2,439	174	13,638	70	181,775	106,789

TABLE 48

LIVESTOCK AND ANIMAL PRODUCTS, NEW CASTLE AND KENT COUNTIES, DELAWARE 1909–1910

(Source: U.S. Bureau of Census 1913: 266–267)

	Total.	Kent.	New Castle.
DOMESTIC ANIMALS (farms and ranges)			
Farms reporting domestic animals	10.450	2.982	2.152
Value of domestic animals ..... dollars	6.243.308	1.872.128	2,292.312
Cattle:			
Total number	54.956	17.599	25.211
Dairy cows	35.708	11.398	16.457
Other cows	3.497	907	1.415
Yearling heifers	5.260	1.599	2.736
Calves	7.153	2.499	3.164
Yearling steers and bulls	1.488	643	592
Other steers and bulls	1.550	553	764
Value ..... dollars	1.048.333	466.332	861.707
Horses:			
Total number	33.065	10.999	11.105
Mature horses	29.682	9.745	9.979
Yearling colts	2.311	779	841
Spring colts	1.122	475	255
Value ..... dollars	3,451.791	1.083.028	1.253.051
Mules:			
Total number	5.935	1.658	524
Mature mules	5.676	1.504	483
Yearling colts	173	91	31
Spring colts	86	63	10
Value ..... dollars	764.133	202.137	72.455
Asses and burros:			
Number	15	11	3
Value ..... dollars	3.975	3,335	80
Swine:			
Total number	49.260	14.607	13.679
Mature hogs	34.101	9.806	9.496
Spring pigs	15.159	4.801	4.183
Value ..... dollars	337.910	95.258	94.976
Sheep:			
Total number	7.806	4.055	1.569
Rams, ewes, and wethers	4.415	2.253	1.046
Spring lambs	3.391	1.832	523
Value ..... dollars	36,595	19,959	9,896
Goats:			
Number	55	22	16
Value ..... dollars	328	79	87
POULTRY AND BEES			
Number of poultry of all kinds	876.081	233.509	213.202
Value ..... dollars	560.146	158.821	147.022
Number of colonies of bees	6.410	1.538	506
Value ..... dollars	13.609	3,170	1.778
LIVE STOCK PRODUCTS			
Dairy Products			
Dairy cows on farms reporting dairy products ..... number	31.653	10.290	14.952
Dairy cows on farms reporting milk produced ..... number	25.600	8.593	12.033
Milk—Produced ..... gallons	7,859.857	2.023.320	4.450.440
Sold ..... gallons	4.425.909	933.479	3.071.442
Cream sold ..... gallons	25.509	4.817	20.495
Butter fat sold ..... pounds	18.149	8.714	9.179
Butter—Produced ..... pounds	1.563.161	454.114	550.512
Sold ..... pounds	1.024.945	281.315	447.018
Cheese—Produced ..... pounds	700	400	300
Sold ..... pounds	200	200	
Value of dairy products, excluding home use of milk and cream ..... dollars	1.089.497	154.723	732.144
Receipts from sale of dairy products ..... dollars	966.173	148.979	723.951
Poultry Products			
Poultry—Raised ..... number	1.476.499	397.946	348.496
Sold ..... number	623.200	190.174	209.406
Eggs—Produced ..... dozens	4.224.300	1.218.721	713.627
Sold ..... dozens	3.346.693	953.019	504.485
Value of poultry and eggs produced ..... dollars	1.712.568	476.541	375.579
Receipts from sale of poultry and eggs ..... dollars	1.084.520	305.949	243.903
Honey and Wax			
Honey produced ..... pounds	62.777	15.514	5.399
Wax produced ..... pounds	2.750	1.720	648
Value of honey and wax produced ..... dollars	5.235	2.096	1.144
Wool, Mohair, and Goat Hair			
Wool, fleeces shorn ..... number	1.976	1.161	455
Mohair and goat hair, fleeces shorn ..... number	70		
Value of wool and mohair produced ..... dollars	3.235	1.929	732
DOMESTIC ANIMALS SOLD OR SLAUGHTERED			
Calves—Sold or slaughtered ..... number	19.706	6.505	9.582
Other cattle—Sold or slaughtered ..... number	7.021	1.456	4.526
Horses, mules, and asses and burros—Sold ..... number	1.765	433	673
Swine—Sold or slaughtered ..... number	48.567	16.233	11.923
Sheep and goats—Sold or slaughtered ..... number	1.405	524	439
Receipts from sale of animals ..... dollars	768.034	190.613	401.986
Value of animals slaughtered ..... dollars	570.575	192.926	100.011

TABLE 46

LIVESTOCK AND ANIMAL PRODUCTS, NEW CASTLE AND KENT COUNTIES, DELAWARE 1919–1920
(Source: U.S. Bureau of Census 1932: 107)

		THE STATE.	Kent.	New Castle.
	DOMESTIC ANIMALS: 1920.			
1	Farms reporting domestic animals.....number..	9,816	2,850	1,777
2	Value of all domestic animals.....dollars..	7,373,260	2,428,505	2,766,049
	Horses:			
3	Total number	27,752	9,541	9,067
4	Colts under 1 year of age	660	334	260
5	Colts 1 year old and under 2 years	931	374	388
6	Mares 2 years old and over	11,654	4,205	3,737
7	Geldings 2 years old and over	14,334	4,576	4,653
8	Stallions 2 years old and over	173	52	99
9	Total value.....dollars..	2,172,609	738,016	802,263
	Mules:			
10	Total number	9,439	2,593	793
11	Mule colts under 1 year of age	158	93	31
12	Mule colts 1 year old and under 2 years	355	149	21
13	Mules 2 years old and over	8,923	2,351	741
14	Total value.....dollars..	1,161,877	307,963	101,022
	Asses and burros:			
15	Total number	12	3	0
16	Total value.....dollars..	2,320	1,075	745
	Cattle:			
17	Total number	46,509	16,926	19,961
18	Total value.....dollars..	3,394,160	1,212,613	1,649,894
	Beef cattle—			
19	Total number	1,732	746	565
20	Calves under 1 year of age	416	208	113
21	Heifers 1 year old and under 2 years	162	75	47
22	Cows and heifers 2 years old and over	749	372	186
23	Steers 1 year old and under 2 years	142	31	70
24	Steers 2 years old and over	214	36	125
25	Bulls 1 year old and over	69	24	24
26	Total value.....dollars..	103,057	39,078	41,847
	Dairy cattle—			
27	Total number	44,757	16,180	19,396
28	Calves under 1 year of age	5,141	2,034	2,499
29	Heifers 1 year old and under 2 years	4,552	1,705	1,967
30	Cows and heifers 2 years old and over	33,026	11,827	13,939
31	Bulls 1 year old and over	1,738	614	971
32	Total value.....dollars..	3,290,473	1,173,535	1,608,047
	Sheep:			
33	Total number	3,220	1,237	1,337
34	Lambs under 1 year of age	703	242	310
35	Ewes 1 year old and over	2,331	925	985
36	Rams 1 year old and over	129	38	41
37	Wethers 1 year old and over	57	32	1
38	Total value.....dollars..	38,397	15,520	16,596
	Goats:			
39	Total number	91	22	27
40	Total value.....dollars..	574	133	233
	Swine:			
41	Total number	38,621	9,614	12,304
42	Pigs under 6 months old	21,814	5,391	6,994
43	Sows and gilts for breeding, 6 months old and over	4,602	1,327	1,584
44	Boars for breeding, 6 months old and over	603	173	229
45	All other hogs, 6 months old and over	11,602	2,723	3,497
46	Total value.....dollars..	603,223	153,185	195,296
	POULTRY AND BEES: 1920.			
47	Chickens.....number..	945,656	246,938	154,825
48	Other poultry.....number..	51,631	19,288	21,440
49	Value of all poultry.....dollars..	1,215,586	328,484	271,608
50	Bees.....number of hives..	2,976	707	744
51	Total value.....dollars..	11,819	3,922	2,568
	LIVE-STOCK PRODUCTS: 1919.			
	Dairy products:			
52	Milk produced (as reported).....gallons..	9,412,193	3,206,878	4,960,494
53	Milk sold.....gallons..	6,876,251	2,234,535	4,492,749
54	Cream sold.....gallons..	34,252	18,398	5,758
55	Butter fat sold.....pounds..	76,232	34,051	1,230
56	Butter made on farms.....pounds..	894,583	195,303	298,679
57	Butter sold.....pounds..	675,339	113,000	272,014
58	Cheese made on farms.....pounds..	3,170	695	2,375
59	Value of dairy products [1].....dollars..	2,553,175	795,380	1,482,297
60	Receipts from sale of dairy products.....dollars..	2,442,253	755,510	1,465,968
61	Average production of milk per dairy cow.....gallons..	340	301	414
	Eggs and chickens:			
62	Eggs produced (as reported).....dozens..	3,720,206	1,030,531	528,200
63	Eggs sold.....dozens..	2,511,908	746,992	376,179
64	Chickens raised (as reported).....number..	1,101,460	302,319	197,719
65	Chickens sold.....number..	434,970	119,691	93,418
66	Value of chickens and eggs produced.....dollars..	3,013,490	823,631	531,756
67	Receipts from sale of chickens and eggs.....dollars..	1,880,307	493,245	322,728
	Honey and wax:			
68	Honey produced.....pounds..	27,703	7,435	5,505
69	Wax produced.....pounds..	317	37	60
70	Value of honey and wax.....dollars..	6,466	1,721	1,254
	Wool:			
71	Sheep shorn.....number..	1,913	756	785
72	Wool produced (as reported).....pounds..	12,268	4,848	5,292
73	Value.....dollars..	6,912	2,617	3,061

[1] Value of milk, cream, and butter fat sold, and of butter and cheese made on farms.

TABLE 47

LIVESTOCK AND ANIMAL PRODUCTS, NEW CASTLE AND KENT COUNTIES, DELAWARE 1929–1930
(Source: U.S. Bureau of Census 1932: 129)

ITEM		THE STATE	Kent	New Castle
Domestic animals on farms, Apr. 1, 1930	farms reporting	8,937	2,706	1,612
Cattle and dairy products:	number	53,914	19,547	21,866
Cattle on farms, Apr. 1, 1930, total	farms reporting	6,707	2,199	1,365
	number	30,057	10,514	12,120
Cows and heifers milked, 1929, total	farms reporting	6,335	2,098	1,327
	number	964	385	416
Of beef or dual-purpose breeding	farms reporting	321	159	86
	number	23,089	8,012	9,434
Cows and heifers milked daily, April, 1930	farms reporting	5,507	1,862	1,215
	gallons	45,291	15,458	19,616
Daily production of milk, April, 1930	gallons	14,756,728	4,891,548	6,792,378
Milk produced,[1] 1929	gallons	11,435,267	4,021,423	5,821,941
Whole milk sold, 1929	farms reporting	2,752	1,253	912
	pounds	479,600	84,694	138,616
Butter churned, 1929	farms reporting	2,603	510	244
	pounds	277,705	44,346	115,293
Butter sold, 1929	farms reporting	1,258	217	173
	pounds	32,883	14,355	4,192
Cream sold as butterfat, 1929	farms reporting	69	37	2
	gallons	6,517	1,734	2,800
Cream sold *not* as butterfat, 1929	farms reporting	38	12	9
Sheep and wool:	number	5,326	2,025	2,358
Sheep and lambs on farms, Apr. 1, 1930, total	farms reporting	139	48	45
	number	1,921	815	764
Lambs born since Oct. 1, 1929	number	138	38	69
Rams and wethers born before Oct. 1, 1929	number	566	189	276
Yearling ewes born between Oct. 1, 1928, and Oct. 1, 1929	number	2,701	983	1,249
Ewes born before Oct. 1, 1928	number	2,834	907	1,371
Sheep and lambs shorn,[1] 1929	farms reporting	139	48	45
	pounds	17,979	5,889	8,675
Wool shorn[1] (unwashed), 1929				
Goats and mohair:	number	539	142	298
Goats and kids on farms, Apr. 1, 1930, total	number	253	86	139
Angora goats and kids (all ages)	number	286	56	159
Other goats and kids (all ages)	number	37	24	9
Angora goats and kids clipped, 1929	pounds	73	33	30
Mohair and kid hair clipped (unwashed), 1929	number	51	8	10
Asses and burros on farms, Apr. 1, 1930				
Bees and honey:	number	2,171	653	501
Hives of bees owned, on farms or elsewhere, Apr. 1, 1930	farms reporting	394	120	92
	pounds	35,241	10,416	10,561
Honey produced, 1929	number	60,714	29,793	18,465
Turkeys raised, 1929	farms reporting	2,239	1,032	657
	number	65,957	21,215	22,018
Ducks raised, 1929	farms reporting	2,524	732	593
	number	11,444	4,292	3,299
Geese raised, 1929	farms reporting	969	281	269

[1] Including estimates for incomplete reports.

ITEM	THE STATE	Kent	New Castle
VALUE OF CROPS, 1929	*Dollars*	*Dollars*	*Dollars*
Field and orchard crops, vegetables, and farm gardens, total value	15,010,134	4,851,373	2,744,776
Cereals	5,498,048	1,687,152	1,534,894
Other grains and seeds	523,691	22,768	1,883
Hay and forage	1,430,388	409,206	533,061
Vegetables (including *all* potatoes and sweetpotatoes)	3,916,453	1,016,242	441,330
Fruits and nuts	3,114,860	1,612,451	89,021
Farm garden vegetables (excluding potatoes and sweetpotatoes) grown for home use only	526,694	103,554	144,587
Receipts from sales of nursery, greenhouse, and hothouse products, etc.:			
Trees, plants, vines, flower and vegetable seeds, bulbs, etc	173,092	7,030	26,445
Flowers, plants, and vegetables grown under glass, and flowers grown in the open	383,968	12,886	389,582
Value of forest products, cut on farms, for home use and for sale	419,576	118,555	49,414
VALUE OF LIVESTOCK ON FARMS, APRIL 1, 1930			
Domestic animals, chickens, and bees, total value	9,044,920	2,828,603	2,764,580
Domestic animals, total value	7,475,404	2,507,026	2,592,339
Horses and colts	1,891,933	640,074	602,190
Mules and mule colts	1,147,122	271,608	70,539
Asses and burros	3,570	560	700
Cattle	4,205,745	1,468,258	1,784,852
Swine	372,644	106,610	109,201
Sheep and lambs	51,573	19,234	23,217
Goats and kids	2,817	682	1,640
Chickens	1,559,203	318,473	169,861
Bees	10,313	3,102	2,380
VALUE OF LIVESTOCK PRODUCTS, 1929			
Dairy products sold and butter churned:	3,134,872	1,037,000	1,637,827
Butter, cream, and whole milk sold, total value	130,882	21,286	57,647
Butter sold	15,437	6,890	2,096
Cream sold as butterfat	12,297	3,468	6,160
Cream sold not as butterfat	2,975,256	1,005,356	1,571,924
Whole milk sold	222,733	40,653	69,208
Butter churned	6,559	2,120	3,210
Wool shorn (unwashed)	29	13	12
Mohair and kid hair clipped (unwashed)	2,806,510	780,512	545,548
Poultry raised, total value	3,532,162	610,029	426,619
Chickens	252,898	122,151	82,169
Turkeys	79,407	25,034	27,522
Ducks	22,043	12,298	9,227
Geese			
Chicken products:	4,066,278	877,184	440,979
Chicken eggs produced	3,572,911	746,907	307,662
Chicken eggs sold	2,235,234	223,423	260,962
Chickens sold	8,063	2,296	2,429
Honey produced			

TABLE 47 (cont.)

LIVESTOCK AND ANIMAL PRODUCTS, NEW CASTLE AND KENT COUNTIES, DELAWARE 1929-1930
(Source: U.S. Bureau of Census 1932: 129)

ITEM		THE STATE	Kent	New Castle
DOMESTIC ANIMALS				
Horses on farms, Apr. 1, 1930, total	number	17,833	6,625	6,192
Mules on farms, Apr. 1, 1930, total	number	9,579	2,285	581
Farms reporting horses and (or) mules, 1930	number	5,403	2,546	1,466
1925	number	9,252	2,767	1,781
Cattle on farms, Apr. 1, 1930, total	number	53,914	19,547	21,866
Cattle on farms, Apr 1, born before Jan. 1, 1930	number	46,875	17,005	18,85.
Cattle on farms, Jan. 1, 1925	number	46,160	17,360	18,921
1920	number	46,500	16,926	19,961
Cows and heifers 2 years old and over—				
Kept mainly for milk production, 1925	number	33,793	12,275	14,351
1920	number	33,026	11,827	13,939
Kept mainly for beef production, 1925	number	2,460	1,813	148
1920	number	749	372	186
Swine on farms, Apr. 1, 1930, total	number	30,341	9,590	8,469
Swine on farms, Apr. 1, born before Jan. 1, 1930	number	20,775	5,876	5,882
Swine on farms, Jan. 1, 1925	number	24,106	7,264	7,448
1920	number	38,621	9,614	12,304
CHICKENS AND CHICKEN EGGS				
Chickens over 3 months old, on farms, Apr. 1, 1930	number	1,551,114	318,475	161,772
	farms reporting	8,930	2,704	1,638
Chicken eggs produced [1] in 1929	dozens	11,200,991	2,436,623	1,130,715
1924	dozens	6,380,888	1,764,835	769,121
1919	dozens	3,908,463	1,086,113	560,897
Chicken eggs sold in 1929	dozens	9,859,015	2,074,742	788,878
	farms reporting	7,869	2,380	1,265
1919	dozens	2,811,908	746,992	376,179
Daily production of chicken eggs, April, 1930	number	640,788	148,750	68,610
	farms reporting	8,747	2,691	1,626
Chickens raised [1] in 1929	number	3,413,677	559,660	358,503
	farms reporting	8,697	2,685	1,618
1924	number	1,582,186	457,617	239,634
1919	number	1,204,793	333,060	220,864
Chickens sold alive or dressed in 1929	number	2,070,702	286,214	212,164
	farms reporting	6,573	1,977	1,144
1919	number	434,970	119,691	93,418

TABLE 48

LIVESTOCK AND ANIMAL PRODUCTS, NEW CASTLE AND KENT COUNTIES, DELAWARE 1930-1940
(Source: U.S. Bureau of Census 1942: 20-21, 27)

ITEM	THE STATE	Kent	New Castle
Horses and/or mules.....farms reporting..Apr. 1, 1940..	6,886	2,250	1,184
Jan. 1, 1935..	8,453	2,448	1,446
Apr. 1, 1930..	8,403	2,846	1,465
Horses and colts.....farms reporting..over 3 mo. old....Apr. 1, 1940..	4,896	1,818	1,111
of all ages.......Jan. 1, 1935..	5,823	2,097	1,412
number.....over 3 mo. old....Apr. 1, 1940..	13,217	5,407	4,477
of all ages.......Jan. 1, 1935..	14,084	5,220	5,498
over 3 mo. old....Apr. 1, 1930..	17,686	6,552	6,110
Colts.....farms reporting..3 to 27 mo. old....Apr. 1, 1940..	497	241	212
under 2 yr. of age..Jan. 1, 1935..	506	243	229
number.....3 to 27 mo. old....Apr. 1, 1940..	831	371	402
under 2 yr. of age..Jan. 1, 1935..	878	383	444
3 to 27 mo. old....Apr. 1, 1930..	841	263	382
Mules and mule colts.....farms reporting..over 3 mo. old....Apr. 1, 1940..	3,674	968	206
of all ages.......Jan. 1, 1935..	4,658	1,153	267
number.....over 3 mo. old....Apr. 1, 1940..	7,828	2,021	409
of all ages.......Jan. 1, 1935..	9,897	2,430	567
over 3 mo. old....Apr. 1, 1930..	9,561	2,273	575
Mule colts.....farms reporting..3 to 27 mo. old....Apr. 1, 1940..	23	12	3
under 2 yr. of age..Jan. 1, 1935..	42	21	4
number.....3 to 27 mo. old....Apr. 1, 1940..	33	18	5
under 2 yr. of age..Jan. 1, 1935..	64	31	7
3 to 27 mo. old....Apr. 1, 1930..	78	31	31
Cattle and calves.....farms reporting..over 3 mo. old....Apr. 1, 1940..	5,811	2,040	1,137
of all ages.......Jan. 1, 1935..	7,365	2,328	1,407
number.....over 3 mo. old....Apr. 1, 1940..	47,241	17,912	18,128
of all ages.......Jan. 1, 1935..	51,090	18,294	19,896
over 3 mo. old....Apr. 1, 1930..	46,875	17,005	18,857
All cows and heifers 2 yr. old and over on Jan. 1 of census year.....farms reporting..Apr. 1, 1940..	5,598	1,906	1,087
Jan. 1, 1935..	7,060	2,281	1,385
number.....Apr. 1, 1940..	33,960	12,501	13,018
Jan. 1, 1935..	36,036	13,178	13,877
Apr. 1, 1930..	30,777	11,094	12,303
Kept mainly for milk production.....farms reporting..Apr. 1, 1940..	5,504	1,894	1,077
Apr. 1, 1930..	6,248	2,057	1,292
number.....Apr. 1, 1940..	32,424	12,039	12,228
Apr. 1, 1930..	30,201	10,982	11,885
Kept mainly for beef production.....farms reporting..Apr. 1, 1940..	118	46	37
Apr. 1, 1930..	128	37	49
number.....Apr. 1, 1940..	1,538	462	786
Apr. 1, 1930..	576	112	306
Cows milked and dairy products:			
Cows and heifers milked.....farms reporting.....1939..	5,565	1,898	1,065
1934..	6,853	2,194	1,383
1929..	6,335	2,098	1,327
number milked.....1939..	29,997	11,434	11,075
1934..	33,192	12,311	12,287
1929..	30,067	10,514	12,120
Milk produced.....gallons.....1939..	15,206,762	5,436,277	6,332,808
1934..	14,099,300	4,778,017	6,287,112
Butter churned on farms.....farms reporting.....1939..	2,120	474	185
1934..	2,546	397	365
pounds.....1939..	277,243	60,187	56,423
1934..	335,039	53,271	66,141
Whole milk sold.....farms reporting.....1939..	2,096	959	706
gallons.....1939..	11,808,096	4,431,660	5,882,136
Cream sold.....farms reporting.....1939..	121	41	22
pounds of butterfat.....1939..	105,894	28,860	27,396
Butter sold.....farms reporting.....1939..	642	112	84
pounds.....1939..	120,522	27,469	39,969
Hogs and pigs.....farms reporting..over 4 mo. old....Apr. 1, 1940..	4,837	1,521	772
of all ages.......Jan. 1, 1935..	5,528	1,545	848
number.....over 4 mo. old....Apr. 1, 1940..	22,978	7,128	5,863
of all ages.......Jan. 1, 1935..	26,493	7,213	7,508
over 3 mo. old....Apr. 1, 1930..	20,775	5,876	5,862
Sows and gilts farrowing or to farrow.....farms reporting..Apr. 1, 1940..	1,449	504	323
Jan. 1, 1935..	1,302	380	352
Apr. 1, 1930..	1,249	384	207
number.....Apr. 1, 1940..	3,269	1,146	1,147
Jan. 1, 1935..	2,227	583	832
Apr. 1, 1930..	2,127	631	574
Sheep and lambs.....farms reporting..over 6 mo. old....Apr. 1, 1940..	85	24	27
of all ages.......Jan. 1, 1935..	128	27	51
number.....over 6 mo. old....Apr. 1, 1940..	1,835	451	789
of all ages.......Jan. 1, 1935..	2,609	742	1,385
over 6 mo. old....Apr. 1, 1930..	3,405	1,210	1,894
Ewes.....farms reporting..over 6 mo. old....Apr. 1, 1940..	70	19	23
1 yr. old and over..Jan. 1, 1935..	107	26	42
number.....over 6 mo. old....Apr. 1, 1940..	1,578	392	698
1 yr. old and over..Jan. 1, 1935..	2,076	633	1,095
over 6 mo. old....Apr. 1, 1930..	3,267	1,172	1,826
Yearling ewes.....farms reporting..6 to 18 mo. old....Apr. 1, 1940..	60	13	23
number.....6 to 18 mo. old....Apr. 1, 1940..	665	98	336
Apr. 1, 1930..	566	189	276
Other ewes.....farms reporting..over 18 mo. old....Apr. 1, 1940..	56	19	17
number.....over 18 mo. old....Apr. 1, 1940..	913	294	362
Apr. 1, 1930..	2,701	983	1,249
Sheep and lambs shorn.....farms reporting.....1939..	66	16	22
1934..	96	20	39
1929..	139	48	45
number shorn.....1939..	1,368	309	611
1934..	2,070	457	1,171
1929..	2,834	907	1,371
Wool shorn.....pounds.....1939..	9,067	2,311	3,756
1934..	13,510	3,262	7,631

[1] Where there are less than 3 farms reporting, data are not shown.

TABLE 48 (cont.)

LIVESTOCK AND ANIMAL PRODUCTS, NEW CASTLE AND KENT COUNTIES, DELAWARE 1930-1940
(Source: U.S. Bureau of Census 1942: 20-21, 27)

ITEM	THE STATE	Kent	New Castle
Goats and kids....farms reporting..over 4 mo. old..Apr. 1, 1940..	86	31	23
of all ages.....Jan. 1, 1935..	98	29	25
of all ages.....Apr. 1, 1930..	83	27	22
number..........over 4 mo. old..Apr. 1, 1940..	472	114	78
of all ages.....Jan. 1, 1935..	341	189	84
of all ages.....Apr. 1, 1930..	539	142	298
Angora goats....farms reporting..over 4 mo. old..Apr. 1, 1940..	16	3	5
number..........over 4 mo. old..Apr. 1, 1940..	52	7	28
of all ages.....Apr. 1, 1930..	253	86	139
Other goats....farms reporting..over 4 mo. old..Apr. 1, 1940..	74	28	20
number..........over 4 mo. old..Apr. 1, 1940..	420	107	40
Mohair and kid hair clipped....farms reporting..1939..	2	....	1
1934..	1	....	1
pounds..........1939..	7	....	(1)
1934..	15	....	(1)
Goats milked during any part of 1939....farms reporting..	23	12	5
number..........	47	25	13
Farm slaughter, 1939:			
Any animals butchered....farms reporting..	5,926	1,881	761
Cattle and/or calves butchered....farms reporting..	219	116	55
Cattle butchered....farms reporting..	122	68	21
number..........	273	88	56
Calves butchered....farms reporting..	120	53	47
number..........	549	166	294
Hogs and pigs butchered....farms reporting..	5,878	1,857	743
number..........	21,964	6,705	4,285
Sheep and lambs butchered....farms reporting..	12	....	9
number..........	168	....	144
Livestock purchased, 1939:			
Cattle and/or calves bought....farms reporting..	961	422	262
Cattle bought....farms reporting..	686	291	207
number..........	3,356	1,194	1,083
Calves bought....farms reporting..	346	164	82
number..........	1,752	693	651
Hogs and pigs bought....farms reporting..	2,420	748	230
number..........	11,795	3,121	1,913
Sheep and lambs bought....farms reporting..	14	4	4
number..........	95	30	64
Livestock sold alive, 1939:			
Cattle and/or calves sold....farms reporting..	3,013	1,366	668
Cattle sold....farms reporting..	1,200	483	394
number..........	4,898	1,789	2,341
Calves sold....farms reporting..	2,640	1,262	858
number..........	14,586	6,615	5,004
Hogs and pigs sold....farms reporting..	1,587	507	208
number..........	20,415	6,562	6,143
Sheep and lambs sold....farms reporting..	39	9	13
number..........	557	144	197
Poultry and poultry products:			
Any poultry on hand....farms reporting..Apr. 1, 1940..	7,218	2,437	1,343
Chickens....farms reporting..over 4 mo. old..Apr. 1, 1940..	7,153	2,419	1,334
over 3 mo. old..Jan. 1, 1935..	*9,039*	*2,836*	*1,621*
over 3 mo. old..Apr. 1, 1930..	8,930	2,704	1,638
number..........over 4 mo. old..Apr. 1, 1940..	901,732	309,823	184,730
over 3 mo. old..Jan. 1, 1935..	*1,072,909*	*300,025*	*183,471*
over 3 mo. old..Apr. 1, 1930..	1,551,114	318,475	161,772
Turkeys....farms reporting..over 4 mo. old..Apr. 1, 1940..	1,443	751	320
over 3 mo. old..Jan. 1, 1935..	*2,519*	*1,068*	*689*
number..........over 4 mo. old..Apr. 1, 1940..	14,318	5,297	2,007
over 3 mo. old..Jan. 1, 1935..	*22,810*	*8,329*	*5,029*
Ducks....farms reporting..over 4 mo. old..Apr. 1, 1940..	1,778	777	459
number..........over 4 mo. old..Apr. 1, 1940..	13,564	4,936	4,213
Geese....farms reporting..over 4 mo. old..Apr. 1, 1940..	179	67	58
number..........over 4 mo. old..Apr. 1, 1940..	873	369	244
Guineas....farms reporting..over 4 mo. old..Apr. 1, 1940..	514	253	127
number..........over 4 mo. old..Apr. 1, 1940..	3,557	1,603	1,097
Chicken eggs produced....farms reporting..1939..	6,644	2,246	1,246
1934..	8,549	2,463	1,527
dozens..........1939..	6,182,309	1,972,176	1,254,835
1934..	6,530,763	2,016,072	1,068,250
Chickens sold (alive or dressed)....farms reporting..1939..	4,879	1,381	852
number..........1939..	16,615,137	647,594	223,053
Any poultry raised....farms reporting..1939..	7,157	2,254	1,249
Chickens raised....farms reporting..1939..	7,031	2,172	1,221
1934..	8,095	2,319	1,413
number..........1939..	17,666,460	898,102	396,177
1934..	6,174,234	510,824	288,846
Turkeys raised....farms reporting..1939..	1,378	718	320
number..........1939..	92,654	36,139	12,342
Ducks raised....farms reporting..1939..	1,366	603	394
number..........1939..	55,347	17,524	17,421
Geese raised....farms reporting..1939..	114	51	33
number..........1939..	1,601	890	332
Guineas raised....farms reporting..1939..	362	177	97
number..........1939..	8,004	3,794	3,089
Bees, Apr. 1, 1940, and honey produced, 1939:			
Hives owned by farm operators (on their farms and on nonfarm land)....farms reporting........	202	71	41
number..........	1,660	631	347
Hives owned by others (kept on farms)....farms reporting........	13	3	2
number..........	119	40	(1)
Honey produced (see text)....farms reporting........	146	86	32
pounds..........	30,828	11,836	6,750

TABLE 49

LIVESTOCK ON FARMS, NEW CASTLE AND KENT COUNTIES, 1880-1940 *
(Sources: Tables 42, 43, 44, 45, 46, 47, 48)

1880		1890		1900		1910		1920		1930**		1940	
NEW CASTLE	KENT	NEW CASTLE	KENT	NEW CASTLE	KENT	NEW CASTLE	KENT	NEW CASTLE	KENT	NEW CASTLE	KENT	NEW CASTLE	KENT
MILCH COWS	SWINE	CHICKENS	CHICKENS	MILCH COWS	SWINE	POULTRY	POULTRY	CHICKENS	CHICKENS	DUCKS	TURKEYS	CHICKENS	CHICKENS
SWINE	HORSES	MILCH COWS	TURKEYS	SWINE	HORSES	MILCH COWS	SWINE	OTHER POULTRY	OTHER POULTRY	TURKEYS	DUCKS	MILCH COWS	MILCH COWS
HORSES	MILCH COWS	SWINE	DUCKS	HORSES	MILCH COWS	SWINE	MILCH COWS	MILCH COWS	MILCH COWS	MILCH COWS	MILCH COWS	SWINE	SWINE
SHEEP	SHEEP	DUCKS	SWINE	OTHER CATTLE	OTHER CATTLE	HORSES	HORSES	SWINE	SWINE	OTHER CATTLE	OTHER CATTLE	OTHER CATTLE	OTHER CATTLE
OTHER CATTLE	OTHER CATTLE	TURKEYS	MILCH COWS	SHEEP	SHEEP	OTHER CATTLE	OTHER CATTLE	HORSES	HORSES	GEESE	GEESE	HORSES	HORSES
MULES/ ASSES	MULES/ ASSES	HORSES	HORSES	MULES/ ASSES	MULES/ ASSES	SHEEP	SHEEP	SHEEP	MULES/ ASSES	SHEEP	SHEEP	DUCKS	DUCKS
OXEN	OXEN	OTHER CATTLE	OTHER CATTLE	GOATS	GOATS	MULES/ ASSES	MULES/ ASSES	MULES/ ASSES	SHEEP	GOATS	GOATS	TURKEYS	TURKEYS
		SHEEP	GEESE			GOATS	GOATS	BEEF CATTLE	BEEF CATTLE	ASSES/ BURROS	ASSES/ BURROS	GUINEAS	MULES
		GEESE	SHEEP					GOATS	GOATS			SHEEP	GUINEAS
		MULES/ ASSES	MULES/ ASSES									MULES	SHEEP
		OXEN	OXEN									GEESE	GEESE

* LISTED BY NUMBER OF ANIMALS, FROM MOST TO LEAST
** NO INFORMATION ON HORSES AND SWINES

NOTE: INCONSISTENT INFORMATION AVAILABLE ON POULTRY

wool, while mules, and through the end of the nineteenth century oxen, assisted with plowing. Kent barnyards differed principally in the predominance of swine over dairy cows before 1920.

Between 1890 and 1910, the number of dairy cows on New Castle farms peaked, and dairying had become concentrated in the northern tier of hundreds and around Middletown (Figure 29; Passmore 1978: 42). In Kent County, farmers continued to increase their dairy herds through the mid-1920s, especially those in the area east of Dover, and again after the start of the Depression (Figure 30; Passmore 1978: 42). Swine followed a similar pattern in the northern county, except that the decrease in their numbers was less dramatic between 1910 and 1920 (Figure 31). In Kent, farmers also began to decrease their holdings of swine after 1910 (Figure 32). In both counties, farmers did not replenish their sheep herds after 1880; the number of sheep in New Castle County dropped especially dramatically between 1880 and 1925 (Figures 33, 34). Farmers in New Castle owned increasing numbers of horses through 1910; after that date, and across the entire period in Kent County, the number of horses on the counties' farms decreased. By 1940, farmers in both counties owned only about one-half the number of horses they had owned two decades previously. The replacement of horses as the principal modes of transportation and of plowing had occurred. For the same reason, mules and asses grew increasingly fewer in number on the counties' farms, especially after 1920.

Although New Castle farmers maintained larger herds of dairy cows than their Kent County counterparts between 1880 and 1940, the difference diminished steadily after 1890 (Table 50). The same pattern is true for ownership of horses, except that by 1920, Kent farmers owned more horses than their northern neighbors. The number of pigs fluctuated over the decades; in one census year, farmers in New Castle County owned more, in another, Kent farmers did. New Castle farmers kept more sheep, taking advantage of the hilly pastures unfit for other uses to maintain their herds. Over time, however, the number of sheep in the two counties virtually equalized. Finally, although chickens in Delaware are generally associated with Sussex County, New Castle farmers owned more than 78,000 in 1880. By 1935, the figure had more than doubled, to over 180,000 (Figure 35). In Kent County over the same period, the number of chickens had increased by 365% to more than 300,000 (Bausman 1940: 11; Figure 36; Table 50).

Meat, dairy products, eggs, wool, and honey composed the principal marketable products of New Castle and Kent counties' livestock, poultry, and bee colonies. New Castle's dairy herds produced more milk, by more than 3,000,000 gallons in 1890 and 1900, and they continued to maintain a sizable lead in milk production through the end of this period (Table 51). Between 1880 and 1940, in contrast, New Castle farmers had gone from producing over 650,000 more pounds of butter than their Kent counterparts to having their southern neighbors outproduce them by a few thousand

FIGURE 29

MILK COWS, NEW CASTLE COUNTY, 1850-1935
(Source: Bausman 1941: 10, Figure 2)

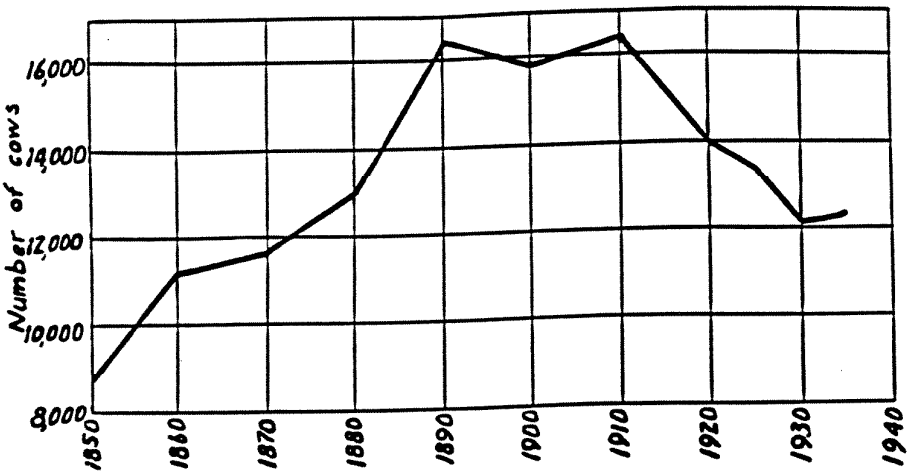


FIGURE 30

MILK COWS, KENT COUNTY, 1850-1935
(Source: Bausman 1940: 12, Figure 2)

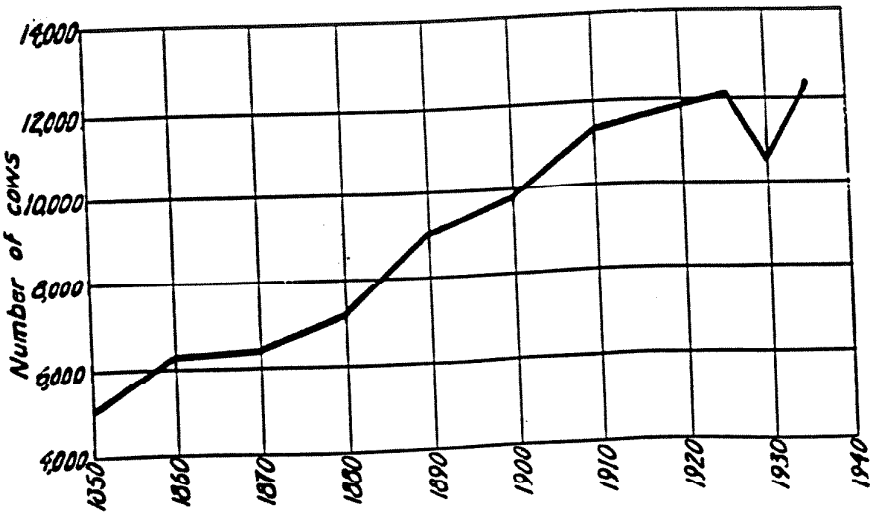


FIGURE 31

SWINE, NEW CASTLE COUNTY, 1840-1935
(Source: Bausman 1941: 10, Figure 3)

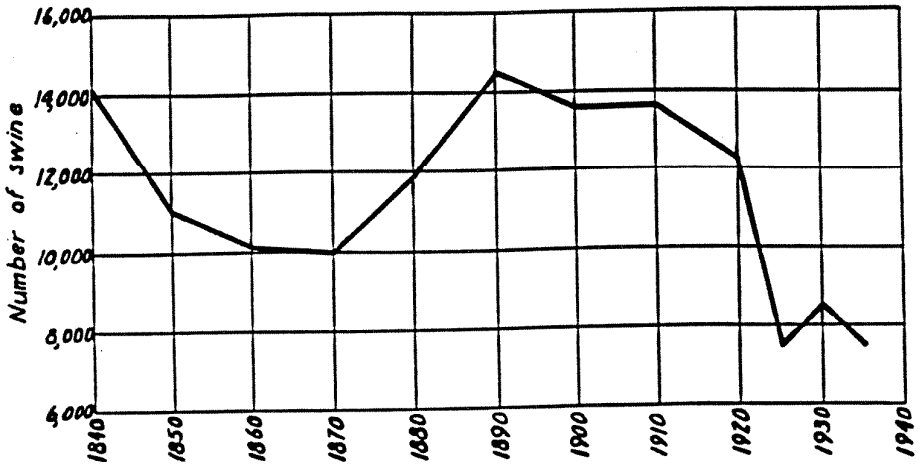


FIGURE 32

SWINE, KENT COUNTY 1840-1935
(Source: Bausman 1940: 12, Figure 3)

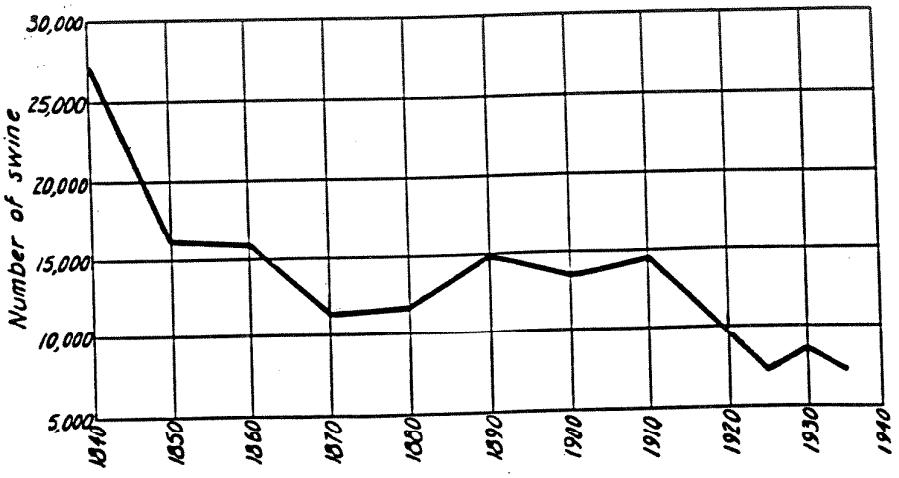


FIGURE 33

SHEEP, NEW CASTLE COUNTY, 1840-1935
(Source: Bausman 1941: 10, Figure 4)

FIGURE 34

SHEEP, KENT COUNTY, 1840-1935
(Source: Bausman 1940: 13, Figure 4)

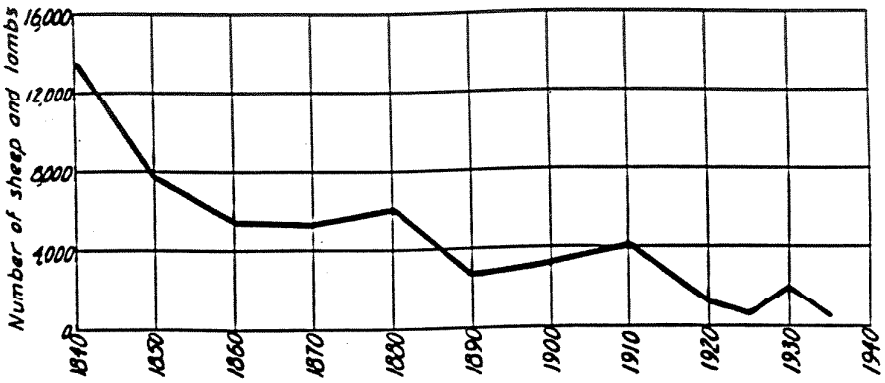


TABLE 50

LIVESTOCK, NEW CASTLE COMPARED TO KENT COUNTY, 1880-1940*

(Sources: 42, 43, 44, 45, 46, 47, 48)

	1880	1890	1900	1910	1920	1930	1940
MILCH/ DAIRY CATTLE	5,761 NC	7,262 NC	5,997 NC	5,449 NC	3,216 NC	1,606 NC	190 NC
OTHER CATTLE	1,241 NC	346 NC	1,578 NC	2,523 NC	181 K**	713 NC	301 K
HORSES	1,106 NC	1,359 NC	492 NC	144 NC	474 K	U	930 K
SWINE	148 NC	397 K	67 NC	988 K	2,690 NC	U	1,265 K
SHEEP	1,498 NC	2,347 NC	1,432 NC	2,216 K	100 NC	333 NC	338 NC
MULES/ ASSES	531 K	1,029 K	1,061 K	1,142 K	1,797 K	U	1,612 K
CHICKENS	U	169,002 K	U	U	92,110 K	U	125,093 K
TURKEYS	U	26,421 K	U	U	U	11,328 K	3,290 K
DUCKS	U	13,339 K	U	U	U	803 NC	723 K
GEESE	U	3,338 K	U	U	U	1,093 K	125 K

* (K=KENT, NC=NEW CASTLE) DIFFERENCE IN NUMBER OF ANIMALS BETWEEN THE 2 COUNTIES, WHERE INDICATED COUNTY HAD HIGHER PRODUCTION BY AMOUNT LISTED

U = INFORMATION UNAVAILABLE

** BEEF CATTLE ONLY

FIGURE 35

CHICKENS, NEW CASTLE COUNTY, 1880-1935
(Source: Bausman 1941: 12, Figure 5)

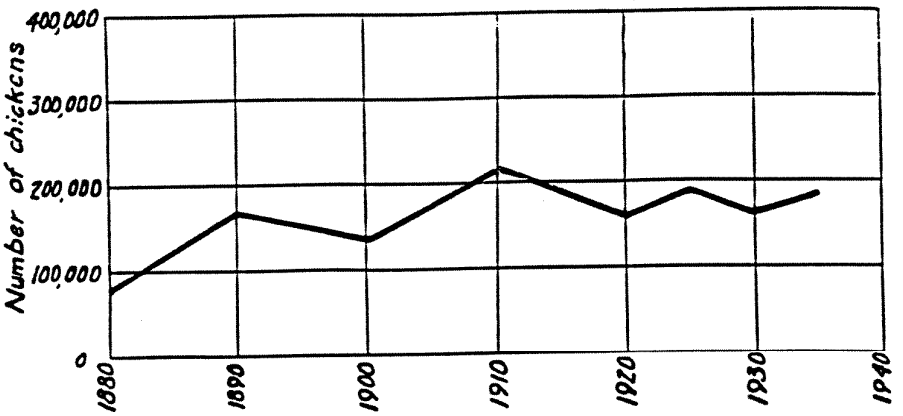


FIGURE 36

CHICKENS, KENT COUNTY, 1880-1935
(Source: Bausman 1940: 13, Figure 5)

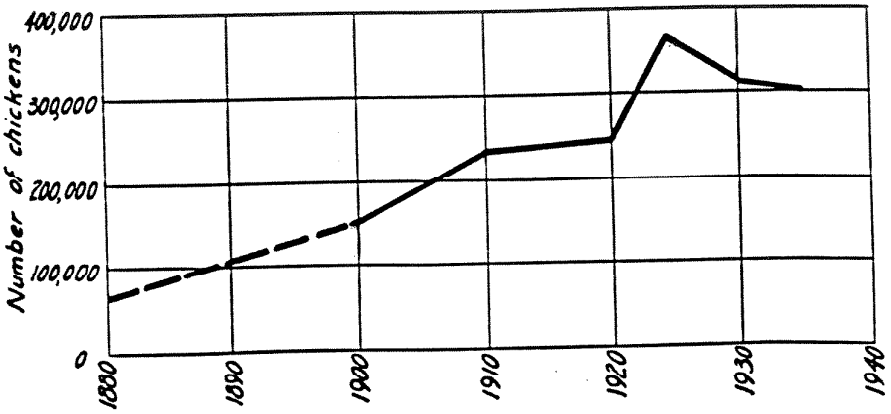


TABLE 51

ANIMAL PRODUCTS, NEW CASTLE COMPARED TO KENT COUNTY, 1880-1940*

(Sources: Tables 42, 43, 44, 45, 46, 47, 48)

	1880	1890	1900	1910	1920	1930	1940
WOOL, LBS.	6,371 NC	9,725 NC	U	706 K**	444 NC	2,786 NC	1,445 NC
MILK, GALS.	848,895 NC	3,679,124 NC	3,654,810 NC	2,427,120 NC	1,753,616 NC	1,900,830 NC	896,531 NC
BUTTER, LBS.	653,038 NC	267,870 NC	142,688 NC	8,023 NC	103,576 NC	53,922 NC	3,764 K
EGGS, DOZ.	U	4,567 K	U	505,094 K	502,331 K	U	U
HONEY, LBS.	U	8,727	U	115	1,930	145	5,075

* DIFFERNCE LISTED WITH COUNTY HAVING GREATER PRODUCTION
(NC=NEW CASTLE; K=KENT)
** WOOL IN NUMBER OF FLEECES

pounds. New Castle's sheep also produced more wool than Kent's, especially before the turn of the century. Kent farms, on the other hand, produced more eggs and honey.

Both Kent and New Castle farmers increased their production of fresh milk most dramatically between 1880 and 1890, by 85% in New Castle and 97% in Kent (Table 52). Except for 1910, fresh milk production continued to grow steadily through 1940, but at a much slower pace. While New Castle farmers were able to market their increasing volume of milk to Philadelphia beginning immediately, Kent County farmers' sales of milk grew only slowly until 1910 (Figures 37, 38). Then, improved transportation facilities and the introduction of pasteurization made it possible for farmers further from the city to transport fresh milk, and their sales increased (Baker 1947: 397). As their milk sales increased, both New Castle and Kent farmers churned less butter (Table 52; Figures 39 and 40; Baker 1947: 397; Passmore 1978: 42). Butter production was down in New Castle beginning in 1880; in Kent production continued to increase over the next decade, then plummeted over the next several decades. "The Depression changed the milk market drastically... Consumption of dairy products in the cities dropped as much as 40%. A dairy surplus became a major problem" (Passmore 1978: 43).

Figures on the value of New Castle and Kent county farmers' livestock, poultry, bee colonies, and of their products appear only for 1900, 1910, and 1920 in the published censuses. In 1900, livestock in both counties was valued over $1,000,000, with New Castle's livestock worth an estimated $340,000 more than Kent's (Table 44). Dairy products from the state's northern farms were valued over $400,000 more than those of Kent, yet Kent's farmers consumed dairy products of a greater value than New Castle's. As other measures have indicated, Kent farmers were still not as fully involved in marketing dairy products as New Castle farmers had been since at least 1830. While New Castle farmers sold over 4,000,000 gallons of milk and almost 550,000 pounds of butter, Kent farmers sold less than 750,000 gallons of milk and just over 300,000 pounds of butter. The value of animals slaughtered in 1899 on Kent County farms was just under one-half the value of the county's dairy products; in New Castle, dairy products were worth more than six times the value of slaughtered livestock.

A decade later New Castle farmers still sold dairy products worth more than four times those sold by Kent farmers (Table 45). Poultry and egg sales in Kent brought in twice the money that dairy products did; in New Castle dairy products provided higher profits, yet the sale of eggs and chickens still contributed over $240,000 to farmers' incomes that year. Together the sale of livestock and of meat accounted for another $500,000 of income in New Castle County, and over $370,000 in Kent. Wool and honey sales played an extremely minor role in both counties' agricultural economy by 1910.

TABLE 52

CHANGES IN ANIMAL PRODUCTS, NEW CASTLE AND KENT COUNTY FARMS
1880-1940

(Sources: Tables 42, 43, 44, 45, 46, 47, 48)

	1890		1900		1910		1920		1930		1940	
	NEW CASTLE	KENT	NEW CASTLE	KENT	NEW CASTLE	KENT	NEW CASTLE	KENT	NEW CASTLE	KENT	NEW CASTLE	KENT
WOOL, LBS.	-40	-60	U	U	U	U	U	U	+39	+18	-57	-61
MILK, GALS.	+85	+97	+10	+22	-37	-40	+10	+37	+27	+34	- 7	+10
BUTTER, LBS.	-12	+38	-28	-21	-19	-15	-46	-57	-54	-57	-59	-29
EGGS, DOZ.	U	U	U	U	U	U	-26	-15	+37	+40	U	U
HONEY, LBS.	U	U	U	U	U	U	+ 2	-52	+48	+29	-36	+12

NOTES:
U = Data unavailable

Figures are percentage increase (+) or decrease (-) in production in each county from the preceding census enumeration

FIGURE 37

GALLONS OF MILK PRODUCED, NEW CASTLE COUNTY, 1870-1930
(Source: Bausman 1941: 12, Figure 6)

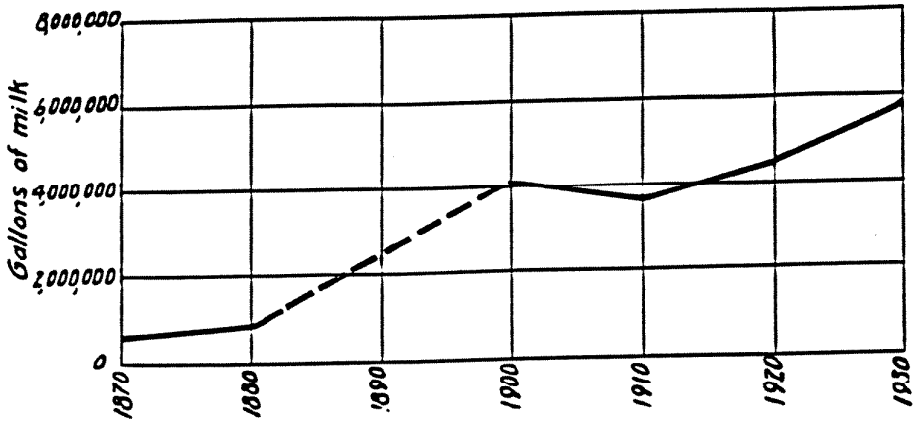


FIGURE 38

GALLONS OF MILK PRODUCED, KENT COUNTY, 1870-1930
(Source: Bausman 1940: 15, Figure 6)

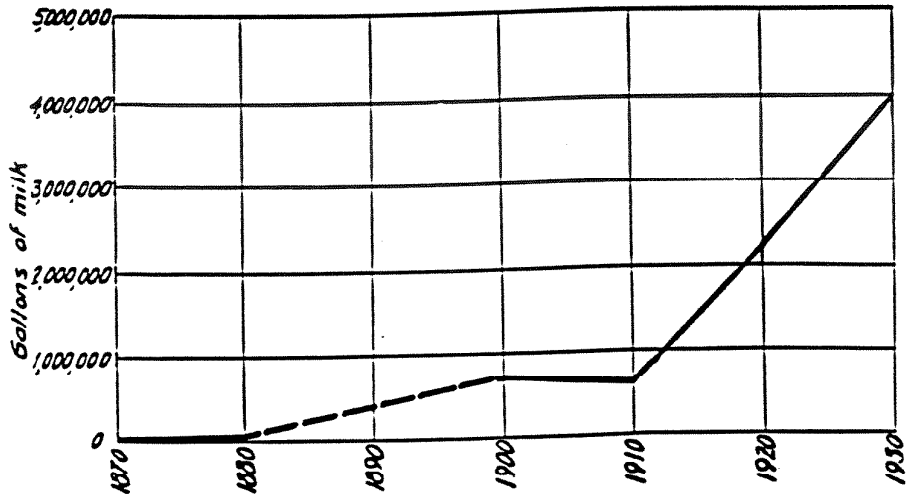
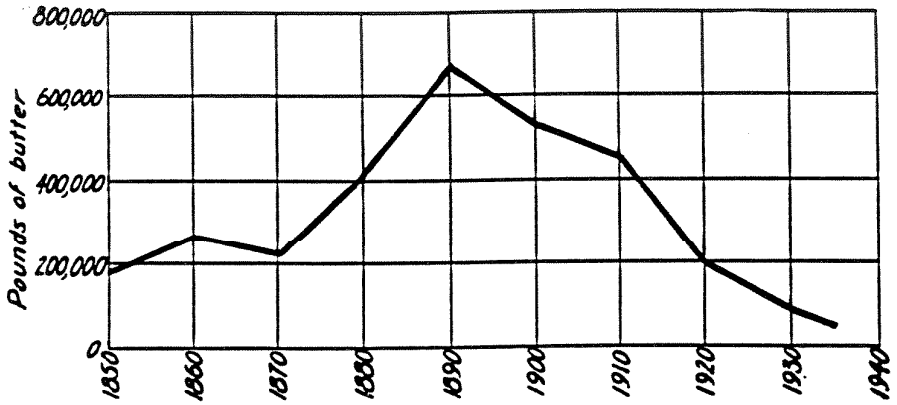


FIGURE 39

POUNDS OF BUTTER PRODUCED, NEW CASTLE COUNTY, 1850-1935
(Source: Bausman 1941: 12, Figure 7)

FIGURE 40

POUNDS OF BUTTER PRODUCED, KENT COUNTY, 1850-1935
(Source: Bausman 1940: 15, Figure 7)



In 1920, the livestock owned by both New Castle and Kent county farmers was valued at over $2,000,000 (Table 46). New Castle farmers had 60% of their total investment in livestock in cattle, mostly dairy cows; in Kent this figure was 50%. Another 30% of the total value both counties' farmers held in horses. Kent farmers invested another 13% in mules. Finally, swine accounted for less than 10% of the total value of livestock in both counties. Moreover, in both New Castle and Kent, poultry were worth more than swine by 1920. Dairy products still provided the counties' farmers with most of their income from livestock. In New Castle, dairy products contributed over $1,460,000 to farmers' incomes compared to only $300,000 from sale of chickens and eggs. In Kent, in contrast, dairy products sold for $755,000 and chickens and eggs for almost $500,000.

Mechanization had already affected farming in Delaware by 1880 (see **1830-1880: Agricultural Production**). That year, New Castle farmers owned "farming implements and machinery" valued at over $644,000, and Kent farmers owned farm machinery worth about $100,000 less (Table 12). Both counties' farmers dramatically increased their investments in farm equipment in the first decade of the twentieth century (Table 14). By 1910, New Castle farmers owned equipment valued at over $1,225,000, about one-half the value of their livestock, and an increase of over $385,000 in ten years. Kent farmers' equipment was worth almost $950,000 in 1910, an increase of 30% in a decade, and also representing about one-half the value of their livestock. Although data on inflation rates are not available, it seems unlikely inflation accounted for this substantial increase over the course of a few decades. About this time, at least one proud owner of a new steam-powered wheat thresher near Summit, New Castle County, posed for a portrait with his new machine, his workers, and his wagon loads of threshed wheat (Yasik 1992). Investments continued to increase phenomenally over the next decade (Table 15). By 1920, New Castle farmers' equipment was worth almost twice its 1910 value. For the first time in 1920, though, Kent farmers owned machinery worth more than New Castle's, over $2,185,000, an increase of almost 60% in ten years. During the 1930s, the Depression affected both the value of farm equipment and farmers' ability to buy machinery (Table 20). Between 1930 and 1940, the value of New Castle farmers' equipment had declined over $270,000 and that of Kent farmers' more than twice that much, over $548,000 (see also Tables 20, 53, and 54).

The census takers' classification of Delaware's farms into several types in 1929-1930 and Bausman's study of agriculture and land use in New Castle and Kent in the mid-1930s offer further insight into farming in the counties at the end of this study period. New Castle County's Crop-specialty Farms produced crops having the highest average value in 1929--$6,541 (Table 36). The county's Cash-grain farms followed, producing an average $1,647 in crops, a substantial difference. Truck and General farms also produced crops worth over $1,000, while the crops raised by Self-

TABLE 53

FARM MACHINERY AND FACILITIES, NEW CASTLE AND KENT COUNTIES, DELAWARE 1930
(Source: U.S. Bureau of Census 1932: 129)

ITEM		THE STATE	Kent	New Castle
FARM MACHINERY, FACILITIES, AND ROADS, 1930				
Farm machinery:				
Automobiles	number	8,724	2,466	1,803
	farms reporting	7,498	2,153	1,376
Motor trucks	number	2,996	871	877
	farms reporting	2,781	827	789
Tractors	number	1,600	594	447
	farms reporting	1,447	547	404
Electric motors for farm work	number	513	115	193
	farms reporting	384	80	130
Stationary gas engines	number	1,788	583	642
	farms reporting	1,453	447	533
Farm facilities:				
Telephones	farms reporting	2,420	610	833
Water piped into farmer's dwelling house	farms reporting	1,500	351	656
Water piped into bathroom	farms reporting	1,033	236	456
Farmer's dwelling house lighted by electricity	farms reporting	1,561	322	514
Kind of road:				
All farms	number	9,707	2,874	1,839
Farms located on—				
Concrete road	number	1,953	788	432
Brick road	number	2		2
Asphalt road	number	93	2	22
Macadam road	number	914	68	592
Gravel road	number	688	161	141
Sand-clay road	number	115	40	
Improved dirt road	number	1,614	266	141
Unimproved dirt road	number	3,942	1,430	436
All other (including not reported)	number	386	119	73

TABLE 54

NUMBER, SIZE, AND VALUE OF FARMS, NEW CASTLE AND KENT COUNTIES, DELAWARE 1939–1940
(Source: U.S. Bureau of Census 1942: 19)

ITEM		THE STATE	Kent	New Castle
Number of farms, by size:	number..1940..	787	173	178
Under 10 acres	1935..	903	199	209
	number..1940..	115	7	27
Under 3 acres (see text)	1935..	64	9	19
	number..1940..	.....	.....	.....
No land owned or leased	number..1940..	572	166	151
3 to 9 acres	1935..	839	190	190
	number..1940..	1,306	372	258
10 to 29 acres	1935..	1,523	391	280
	number..1940..	716	210	153
10 to 19 acres (see text)	1935..	880	219	162
	number..1940..	1,158	309	128
30 to 49 acres	1935..	1,441	315	164
	number..1940..	1,096	266	107
50 to 69 acres	1935..	1,296	277	148
	number..1940..	1,309	368	152
70 to 99 acres	1935..	1,607	445	204
	number..1940..	1,326	478	225
100 to 139 acres	1935..	1,463	477	243
	number..1940..	791	317	171
140 to 179 acres	1935..	881	334	200
	number..1940..	68	34	13
175 to 179 acres (see text)	1935..	82	39	16
	number..1940..	468	180	133
180 to 219 acres	1935..	513	204	158
	number..1940..	225	83	71
220 to 259 acres	1935..	229	82	80
	number..1940..	332	122	110
260 to 379 acres	1935..	387	105	103
	number..1940..	99	31	32
380 to 499 acres	1935..	76	22	30
	number..1940..	47	17	10
500 to 699 acres	1935..	37	11	13
	number..1940..	26	10	3
700 to 999 acres	1935..	15	5	4
	number..1940..	25	5	9
1,000 acres and over	1935..	10	3	3
All land in farms, 1940, by size of farm:	acres.....	3,895	986	880
Under 10 acres	acres.....	25,719	6,654	4,552
10 to 29 acres	acres.....	44,627	11,588	4,903
30 to 49 acres	acres.....	63,903	15,560	6,306
50 to 69 acres	acres.....	107,597	31,985	12,728
70 to 99 acres	acres.....	152,155	55,207	25,104
100 to 139 acres	acres.....	126,009	48,800	22,961
140 to 179 acres	acres.....	98,454	35,888	26,215
180 to 219 acres	acres.....	52,743	19,778	16,949
220 to 259 acres	acres.....	100,865	36,750	33,547
260 to 379 acres	acres.....	41,612	13,059	13,591
380 to 499 acres	acres.....	28,732	9,268	8,811
500 to 699 acres	acres.....	20,419	7,985	2,266
700 to 999 acres	acres.....	39,080	6,041	12,160
1,000 acres and over	acres.....	.....	.....	.....
Cropland harvested, 1939, by size of farm:	acres.....	1,891	491	328
Under 10 acres	acres.....	11,536	3,363	1,734
10 to 29 acres	acres.....	21,261	5,207	1,709
30 to 49 acres	acres.....	29,646	7,080	2,220
50 to 69 acres	acres.....	48,334	14,497	5,341
70 to 99 acres	acres.....	67,378	24,746	12,260
100 to 139 acres	acres.....	52,645	21,870	11,923
140 to 179 acres	acres.....	40,606	15,609	13,325
180 to 219 acres	acres.....	22,468	8,043	7,993
220 to 259 acres	acres.....	42,800	15,341	15,426
260 to 379 acres	acres.....	16,114	4,747	5,908
380 to 499 acres	acres.....	8,537	2,562	1,816
500 to 699 acres	acres.....	5,806	2,040	477
700 to 999 acres	acres.....	10,131	1,171	2,489
1,000 acres and over	dollars.....	2,897,424	412,745	1,063,593
Value of land and buildings, 1940, by size of farm:	dollars.....	4,494,384	982,375	1,891,568
Under 10 acres	dollars.....	3,974,988	877,140	1,290,606
10 to 29 acres	dollars.....	4,157,124	868,315	1,258,094
30 to 49 acres	dollars.....	5,782,308	1,480,100	1,791,803
50 to 69 acres	dollars.....	7,787,772	2,295,675	3,000,410
70 to 99 acres	dollars.....	5,918,215	1,897,043	2,588,884
100 to 139 acres	dollars.....	5,150,537	1,351,215	2,884,750
140 to 179 acres	dollars.....	2,522,519	688,460	1,473,942
180 to 219 acres	dollars.....	4,313,620	1,178,100	2,171,200
220 to 259 acres	dollars.....	2,163,782	430,480	1,335,992
260 to 379 acres	dollars.....	1,211,000	261,080	689,600
380 to 499 acres	dollars.....	844,797	174,730	98,275
500 to 699 acres	dollars.....	3,982,400	78,800	3,315,700
700 to 999 acres	dollars.....	.....	.....	.....
1,000 acres and over	dollars.....	193,104	38,739	47,655
Value of implements and machinery, 1940, by size of farm:	dollars.....	348,998	84,061	93,770
Under 10 acres	dollars.....	407,304	118,625	107,638
10 to 29 acres	dollars.....	460,307	98,708	101,540
30 to 49 acres	dollars.....	573,830	120,965	139,264
50 to 69 acres	dollars.....	918,086	306,383	248,455
70 to 99 acres	dollars.....	703,679	243,364	233,755
100 to 139 acres	dollars.....	574,463	203,654	209,300
140 to 179 acres	dollars.....	332,210	98,125	142,515
180 to 219 acres	dollars.....	597,096	159,375	208,025
220 to 259 acres	dollars.....	228,348	55,550	82,971
260 to 379 acres	dollars.....	118,304	30,800	23,700
380 to 499 acres	dollars.....	73,641	27,400	4,989
500 to 699 acres	dollars.....	160,751	28,700	51,099
700 to 999 acres	dollars.....	.....	.....	.....
1,000 acres and over	dollars.....	.....	.....	.....

sufficient farmers averaged only $159 in value. In Kent County, the 223 reporting Fruit farms produced an average of over $4,250 in produce, followed by Crop-specialty farms at $2,086 and Cash-grain farms at $1,303. General, Truck, and Dairy farms produced crops valued between $788 and $933, while the county's Self-sufficient farmers' crops were worth only an average $157.

New Castle's few Animal-specialty farms, in contrast, sold or traded livestock of the greatest value, an average $3,161 per farm. This figure then dropped dramatically to between $200 and $410 per farm for the county's General, Cash-grain, Dairy, and Poultry farms, and to only $82 each for the Self-sufficient farms. Similarly, in Kent, the dozen Animal-specialty farms sold livestock valued at over $1,200, while the owners of other types of farms sold only an average of $110 to $230 in livestock; the county's self-sufficient farmers chose to sell or trade livestock worth only an average of $57 dollars.

Dairy and Poultry farms in New Castle County both sold an average of over $2,200 in animal products in 1929, compared to averages of $1,200 and $990 respectively for General and Cash-grain farms, and of only $186 for Self-sufficient farms. Kent Dairy and Poultry farmers too sold the most dairy products and eggs, but they averaged only $1,375 to $1,775 in value, several hundred dollars less than the gross profits of the "average" New Castle Dairy and Poultry farmer. General, Cash-grain, Crop-specialty, and Fruit farmers earned only an average of $360 to $650 in animal products, and Self-sufficient farmers sold only about $120 each in dairy products and eggs. Overall, then, these figures indicate the census farm typology has validity for New Castle and Kent county farms in 1930, despite the fact that it was not devised specifically to categorize these counties' farms (see also Table 55 for more detailed information on livestock ownership by farm type).

Bausman was more concerned with the status of farms on different classes of land in New Castle and Kent counties in the mid-1930s. He defined four classes of agricultural land in New Castle and Kent counties. Maps accompanying his reports correlate these land classes with soil types. Class I is "the poorest grade of land. It is made up, largely, of timber, brush, and marsh land... Most of the farms in this land class have been abandoned for agricultural use... Class II land comprises largely open untillable land. There is some crop land in this land class but most of the farms have been abandoned for agricultural use... Class III land comprises largely crop land that is less intensively used than Class IV land... Class IV land is the best grade of crop land. In general, the land...is well-drained, [and] is fairly level to moderately rolling..." (Bausman 1941: 27-28 and Table 17; Table 56). Based on this classification, Bausman determined that about "three-fifths of the land of New Castle County appears to be suited for agricultural use..." (Bausman 1941: 33).

TABLE 55

LIVESTOCK AND ANIMAL PRODUCTS BY FARM TYPE, NEW CASTLE AND KENT COUNTIES, DELAWARE 1929-1930
(Source: U.S. Bureau of Census 1932: 75)

TYPE OF FARM, BY CLASS OF ANIMALS	THE STATE		KENT		NEW CASTLE	
	Farms reporting	Animals or quantity	Farms reporting	Animals or quantity	Farms reporting	Animals or quantity
General farms:						
Horses and mules, excluding colts ..... number	2,790	10,106	1,157	4,237	462	2,377
Cows and heifers kept mainly for milk ..... number	2,393	12,676	1,050	5,949	448	3,960
beef ..... number	47	159	17	57	11	66
Other cattle, including calves ..... number	1,880	9,597	897	4,393	407	3,239
Sows and gilts ..... number	487	724	197	288	74	129
Other hogs, excl. pigs under 3 mos. old ..... number	1,769	7,404	724	2,902	282	1,978
Cash-grain farms:						
Horses and mules, excluding colts ..... number	377	1,863	164	801	149	875
Cows and heifers kept mainly for milk ..... number	333	2,696	152	1,183	135	1,384
beef ..... number	4	68			3	49
Other cattle, including calves ..... number	304	2,255	147	883	128	1,291
Sows and gilts ..... number	74	168	44	60	22	97
Other hogs, excl. pigs under 3 mos. old ..... number	216	1,255	96	396	79	735
Crop-specialty farms:						
Horses and mules, excluding colts ..... number	377	1,186	58	187	15	36
Cows and heifers kept mainly for milk ..... number	207	412	31	110	9	48
beef ..... number	4	7				
Other cattle, including calves ..... number	143	315	21	81	8	51
Sows and gilts ..... number	64	79	9	14		
Other hogs, excl. pigs under 3 mos. old ..... number	231	575	34	141		
Fruit farms:						
Horses and mules, excluding colts ..... number	502	1,517	189	647	6	15
Cows and heifers kept mainly for milk ..... number	322	740	132	388	4	35
beef ..... number	5	6	2	2		
Other cattle, including calves ..... number	161	643	87	440	4	61
Sows and gilts ..... number	77	113	23	49	1	1
Other hogs, excl. pigs under 3 mos. old ..... number	235	828	77	330	2	13
Truck farms:						
Horses and mules, excluding colts ..... number	781	2,247	136	374	59	152
Cows and heifers kept mainly for milk ..... number	467	1,270	87	272	32	86
beef ..... number	10	22	4	10	1	1
Other cattle, including calves ..... number	296	1,071	67	280	22	103
Sows and gilts ..... number	83	120	17	26	4	8
Other hogs, excl. pigs under 3 mos. old ..... number	415	1,335	66	178	12	56
Dairy farms:						
Horses and mules, excluding colts ..... number	613	2,734	179	796	348	1,557
Cows and heifers kept mainly for milk ..... number	648	7,803	188	1,927	370	4,965
beef ..... number	5	10			5	10
Other cattle, including calves ..... number	618	5,676	180	1,502	353	3,506
Sows and gilts ..... number	121	243	39	87	60	115
Other hogs, excl. pigs under 3 mos. old ..... number	313	1,781	110	486	158	1,066
Animal-specialty farms:						
Horses and mules, excluding colts ..... number	36	153	12	46	16	82
Cows and heifers kept mainly for milk ..... number	30	203	9	55	14	124
beef ..... number	3	33			3	33
Other cattle, including calves ..... number	32	452	8	72	16	341
Sows and gilts ..... number	16	40	5	16	5	11
Other hogs, excl. pigs under 3 mos. old ..... number	21	442	6	102	9	270
Poultry farms:						
Horses and mules, excluding colts ..... number	1,683	3,737	278	587	64	166
Cows and heifers kept mainly for milk ..... number	1,158	2,392	191	521	52	174
beef ..... number	21	51	5	21	2	9
Other cattle, including calves ..... number	662	1,600	139	387	43	187
Sows and gilts ..... number	223	344	21	31	7	27
Other hogs, excl. pigs under 3 mos. old ..... number	867	2,570	95	254	17	134
Self-sufficing farms:						
Horses and mules, excluding colts ..... number	556	1,208	152	324	107	250
Cows and heifers kept mainly for milk ..... number	346	595	101	194	83	169
beef ..... number	18	39	6	15	6	16
Other cattle, including calves ..... number	193	442	67	164	56	141
Sows and gilts ..... number	47	71	11	18	11	23
Other hogs, excl. pigs under 3 mos. old ..... number	263	707	61	134	45	190
Abnormal and unclassified farms:						
Horses and mules, excluding colts ..... number	688	1,755	221	513	240	822
Cows and heifers kept mainly for milk ..... number	344	1,414	126	383	145	900
beef ..... number	21	181	3	7	18	174
Other cattle, including calves ..... number	206	1,086	77	251	97	743
Sows and gilts ..... number	57	225	18	42	23	163
Other hogs, excl. pigs under 3 mos. old ..... number	298	1,451	99	322	84	866

TABLE 56

LAND USE BY LAND CLASSES, NEW CASTLE COUNTY, 1937
(Source: Bausman 1941: 36, Table 11)

Use of land	Land classes				Residential & industrial	County
	I, Im, IR, & IRm	II & IIR	III & IIIR	IV & IVR		
	per cent	per cent	per cent	per cent	per cent	per cent
Corn - grain, sweet corn, and silage	.4	2.8	17.3	21.3	—	11.9
Wheat	.1	.7	16.0	33.3	—	14.7
Other grains	*	.2	2.1	.3	—	.8
Total grain crops	.5	3.7	35.4	54.9	—	27.4
Clover and timothy hay	.1	.9	6.5	8.5	—	4.6
Clover hay	*	*	.9	1.7	—	.8
Alfalfa hay	*	.1	1.5	.8	—	.7
Soybean or cowpea hay[1]	.1	.2	2.8	2.1	—	1.5
Other non-legume hay	.1	.8	4.4	2.2	—	2.1
Total hay crops	.3	2.0	16.1	15.3	—	9.7
Total truck crops[2]	.2	1.2	3.1	1.1	—	1.4
Total cannery crops[3]	*	.1	.8	.6	—	.4
Total fruit crops[4]	*	.1	1.2	.5	—	.5
Tillable land lying out	1.0	9.4	11.4	1.6	—	5.0
Tillable pasture	.1	1.3	10.4	15.4	—	7.8
Open, untillable pasture	3.6	17.6	4.4	1.3	—	4.0
Brush pasture	1.8	.7	.3	.2	—	.7
Total pasture	5.5	19.6	15.1	16.9	—	12.5
Timber	45.1	12.5	2.7	2.6	—	14.6
Brush not pastured	7.6	5.1	1.1	.6	—	2.9
Marsh land	34.3	1.0	.3	.2	—	9.4
Other wasteland	—	12.6	—	.1	—	.9
Open, untillable idle land	3.6	25.0	1.6	.3	—	3.4
Total timber, marsh, and wasteland	90.6	56.2	5.7	3.8	—	31.2
Farmsteads	.1	1.0	3.3	2.2	—	1.7
Other houses	.7	1.8	2.2	.5	—	1.2
Roads	.5	1.5	2.6	1.9	—	1.6
Railroads	.3	.6	.5	.2	—	.4
Miscellaneous[5]	.3	2.8	2.6	.5	—	1.2
Total development	1.9	7.7	11.2	5.3	—	6.1
Residential and industrial	—	—	—	—	100.0	5.8
Total land area	100.0	100.0	100.0	100.0	100.0	100.0

* Less than .05 per cent.

The number of farms operated by tenants increased as one moved from the poorest to the best agricultural land. Almost 85% of the farms on Class I land were owner-operated compared to only 39% of those on Class IV land. "Apparently," Bausman concluded, "this situation is due, largely, to the relative amounts of capital required to own farms in the different land classes" (Bausman 1931: 36-37). The difficulty of locating tenants willing to rent virtually non-productive land was probably also a contributing factor. The best farm lands also contained the buildings in the best condition in 1937. Whereas 13% of the buildings on Class IV land were considered to be in "excellent" condition, only 1% of those on Class I land were so classified. Twenty-seven percent of the buildings on Class I land were in "poor" condition, however, compared to only 3% of those on Class IV farm lands (Bausman 1941: 43).

Farms on Class IV land averaged almost 80 acres larger than those on Class I land and contained an average of 86 acres more tillage land (Table 57). Whereas farmers on Class IV land planted more than one-quarter of their land in wheat, another 14% in corn, and another 12% in clover and timothy, 40% of the land on Class I farms stood in woods. Farmers on Class IV land also owned more livestock than farmers on poorer land (Table 58). Finally, Class IV farms were also the most highly capitalized, with land and buildings worth an average $12,534, compared to $5,977 for Class I farms. The buildings on Class IV farms were valued an average of over 40% more than those on Class I farms (Bausman 1941: 47).

In his study of Kent County, Bausman employed the same four classes of land (Bausman 1940: 34-35). Based on this classification, Bausman determined that as in New Castle County, about three-fifths of the land was suited for agricultural use (Bausman 1940: 38; Table 59).

The number of farms operated by tenants also increased as one moved from the poorest to the best agricultural land. Almost 65% of the farms on Class II land were owner-operated compared to only 40% of those on Class IV land. "This may be due largely," Bausman concluded, "to the different amounts of capital required per farm in the different land classes" (Bausman 1940: 42). The difficulty of locating tenants willing to rent virtually non-productive land was probably also a contributing factor, as in New Castle County. The best farm lands also contained the buildings in the best condition in 1937. Whereas 5% of the buildings on Class IV land were considered to be in "excellent" condition, none of those on Class II land were so classified. Three-quarters of the buildings on Class II land were in "poor" condition, however, compared to only 6% of those on Class IV farm lands (Bausman 1940: 48).

Farms on Class IV land averaged almost 69 acres larger than those on Class II land and contained an average of 65 acres more tillage land (Table 60). Whereas farmers on Class IV land planted

TABLE 57

LAND USE ON FARMS BY LAND CLASSES, NEW CASTLE COUNTY, 1937
(Source: Bausman 1941: 46, Table 22)

	Land classes				County
	I & IR	II & IIR	III & IIIR	IV & IVR	
Number of farms	13	9	147	122	291
Total land operated per farm, acres	103.8	70.7	138.5	180.7	152.6
Tillable land per farm, acres	50.4	35.8	80.2	136.6	101.1
Use of land	per cent	per cent	per cent	per cent	per cent
Corn for grain	9.2	11.9	11.6	14.2	12.7
Corn for silage	—	—	.8	.4	.6
Sweet corn	.1	.8	1.4	2.5	1.9
Wheat	4.1	11.3	14.2	26.7	20.1
Rye	—	—	.1	.1	.1
Soybeans for grain	—	—	.9	.2	.5
Oats	1.0	2.4	1.6	.3	.9
Barley	—	—	.4	.2	.3
Clover and timothy hay	3.3	6.4	10.4	12.1	11.0
Clover hay	—	—	.1	.3	.2
Alfalfa hay	.1	—	1.2	.8	.9
Soybean and cowpea hay	.5	1.3	1.2	.8	1.0
Other legume hay	.4	—	.1	—	.1
Other non-legume hay	.2	—	.3	.3	.3
Total extensive crops	18.9	34.1	44.3	58.9	50.6
White potatoes	.4	.6	.4	.1	.3
Tomatoes (cannery)	.9	.9	.9	.3	.7
Asparagus	.1	.1	*	.1	*
Peas (cannery)	—	.1	.1	.1	.1
Other truck crops	.4	.1	.7	.4	.5
Apples	.5	—	.6	.3	.4
Peaches	—	.6	.1	.1	.1
Garden	.8	1.0	.5	.4	.4
Total intensive crops	3.1	3.4	3.3	1.8	2.5
Total crops	22.0	37.5	47.6	60.7	53.1
Acres double cropped	—	—	.6	.4	.4
Difference = acres in crops	22.0	37.5	47.0	60.3	52.7
Tillable land lying out	14.2	9.1	3.5	1.3	2.8
Tillable pasture	12.4	4.0	7.4	14.0	10.8
Total tillable land	48.6	50.6	57.9	75.6	66.3
Woods not pastured	39.5	7.1	18.8	8.0	14.0
Woods pastured	.4	.4	.6	.4	.5
Untillable pasture	6.6	32.2	9.8	4.1	7.1
Farmsteads, roads, and fence rows	3.5	6.4	4.0	3.2	3.6
Marsh	.2	1.0	6.0	6.6	6.1
Other wasteland	1.2	2.3	2.9	2.1	2.4
Total untillable land	51.4	49.4	42.1	24.4	33.7
Total land per farm	100.0	100.0	100.0	100.0	100.0

* Less than .05 per cent.

TABLE 58

LIVESTOCK ON FARMS BY LAND CLASSES, NEW CASTLE COUNTY , 1937
(Source: Bausman 1941: 48, Table 25)

	Land classes				County
	I & IR	II & IIR	III & IIIR	IV & IVR	
Number of farms	13	9	147	122	291
Kinds of livestock	number	number	number	number	number
Cows	2.7	2.9	10.1	15.0	11.6
Heifers (1 yr. or over)	1.1	.8	2.2	3.3	2.5
Heifers (under 1 yr.)	.7	.6	2.1	2.6	2.2
Herd bulls	.3	.3	.8	1.1	.9
Total dairy cattle	4.8	4.6	15.2	22.0	17.2
Other cattle	—	—	.1	.1	.1
Horses	2.1	2.1	2.9	4.9	3.7
Mules	.3	—	.4	.3	.3
Colts	.1	—	.5	1.1	.7
Ewes, and lambs weaned	—	—	.6	*	.3
Brood sows	.5	.4	.8	1.1	.9
Other hogs	1.8	1.7	2.6	5.0	3.6
Pigs, weaned	1.9	2.2	2.6	4.7	3.5
Chickens	93.1	125.2	151.9	183.8	161.8
Turkeys & other poultry	25.4	18.4	27.5	40.2	32.5
Total poultry	118.5	143.6	179.4	224.0	194.3
Total animal units[1] per farm	8.0	7.6	19.1	28.1	22.0

* Less than .05 of an animal.

TABLE 59

LAND USE BY LAND CLASSES, KENT COUNTY, 1937
(Source: Bausman 1940: 41, Table 14)

Use of land	Land classes				County
	I & IM	II	III	IV	
	per cent	per cent	per cent	per cent	per cent
Corn—grain, sweet corn, and silage	.1	7.3	25.1	23.7	14.7
Wheat	.1	3.5	22.0	23.3	13.4
Rye	—	.1	.3	.2	.1
Other grains	*	.4	.5	.5	.3
Total grain crops	.2	11.3	47.9	47.7	28.5
Clover and timothy hay	*	1.3	2.4	1.4	1.2
Clover hay	*	.1	1.3	1.9	.9
Alfalfa hay	*	—	.3	.7	.3
Soybean and cowpea hay[1]	*	.9	3.6	2.9	1.9
Other legume hay	—	—	.1	*	.1
Other non-legume hay	*	.1	.2	.1	.1
Total hay crops	*	2.4	7.9	7.0	4.5
Sweet potatoes	—	*	.2	.7	.2
White potatoes	*	.1	.2	.3	.2
Asparagus	—	—	*	.1	*
Cantaloupes	—	—	.1	.3	.1
Watermelons	—	—	*	*	*
Cucumbers and pickles	—	*	*	*	*
Other truck crops	*	.6	1.8	1.9	1.1
Garden	*	.3	.2	.2	.2
Total truck crops	*	1.0	2.5	3.5	1.8
Tomatoes	*	.9	2.5	2.3	1.4
Lima beans	—	*	.4	1.0	.4
String beans	—	—	*	*	*
Total cannery crops	*	.9	2.9	3.3	1.8
Orchard—apples and peaches	*	.1	.9	8.6	2.8
Vineyard	—	*	.2	.7	.2
Strawberries	*	*	.1	*	.1
Other small fruits	—	—	*	*	*
Total fruit crops	*	.1	1.2	9.3	3.1
Tillable land lying out	.1	1.2	5.2	2.6	2.4
Tillable pasture	*	1.7	13.1	13.5	7.8
Open, untillable pasture	.1	7.8	3.3	.7	1.6
Brush pasture	.6	.2	.1	*	.3
Total pasture	.7	9.7	16.5	14.2	9.7
Timber	59.3	6.8	1.5	1.0	22.8
Brush	4.7	4.7	.7	.5	2.3
Marsh land	33.6	—	*	.1	12.3
Other wasteland	—	—	*	*	*
Open, untillable idle land	.7	56.7	6.0	1.8	5.4
Total timber, marsh and wasteland	98.3	68.2	8.2	3.4	42.8
Farmsteads	*	1.9	3.8	3.2	2.1
Other houses	.1	1.3	.7	.5	.5
Roads	.5	1.5	2.1	2.3	1.5
Railroads	*	.1	.2	.2	.1
Villages and towns[2]	.1	.1	.6	2.2	.9
Miscellaneous[2]	*	.3	.3	.6	.3
Total developments	.7	5.2	7.7	9.0	5.4
Total land area	100.0	100.0	100.0	100.0	100.0

* Less than .05 per cent.

TABLE 60

LAND USE ON FARMS BY LAND CLASSES, KENT COUNTY, 1937
(Source: Bausman 1940: 56, Table 34)

	Land classes			
	II	III	IV	County[1]
Number of farms	25	251	177	498
Total land operated per farm, acres	65.6	123.1	133.8	125.7
Tillable land per farm, acres	36.2	75.3	101.7	81.3
Use of land	per cent	per cent	per cent	per cent
Corn for grain	14.2	14.3	15.7	14.4
Corn for silage	.2	.3	.5	.5
Sweet corn	.2	.1	*	.1
Wheat	5.9	13.6	18.5	14.7
Rye	.2	.9	1.4	1.0
Soybeans	.3	.6	1.3	.8
Oats	—	.2	.2	.2
Barley	—	—	*	*
Buckwheat	—	*	*	*
Miscellaneous extensive	.9	.4	.4	.4
Clover and timothy hay	3.6	4.4	3.4	3.8
Clover hay	.4	.7	1.7	1.1
Alfalfa hay	—	.1	.6	.2
Soybean and cowpea hay	2.6	1.9	2.2	2.0
Other legume hay	.2	.8	.4	.6
Other non-legume hay	.9	.5	.4	.6
Total extensive crops	29.6	38.8	46.7	40.2
Sweet potatoes	*	.2	.7	.3
White potatoes	.3	.3	.7	.4
Tomatoes	3.5	3.0	3.3	3.0
Asparagus	—	*	.1	.1
Peas	—	.2	.6	.4
Lima beans	—	*	.6	.3
Stringbeans, cannery	—	.1	.1	.1
Stringbeans, fresh	—	*	—	*
Cantaloupes	—	.1	.2	.1
Watermelons	—	*	.1	.1
Cucumbers	*	.1	*	.1
Pickles	—	—	*	*
Miscellaneous intensive	.6	*	—	*
Apples, bearing	.2	.6	3.3	1.5
Apples, not bearing	—	.1	.2	.2
Peaches, bearing	—	*	1.8	.6
Peaches, not bearing	*	—	.1	.1
Other tree fruit	*	*	.1	.1
Grapes	.6	.1	.6	.2
Strawberries	.4	.2	.1	.2
Other small fruit	—	—	—	—
Garden	1.1	.8	.9	.8
Total intensive crops	6.7	5.8	13.5	8.6
Total	36.3	44.6	60.2	48.8
Number of farms	25	251	177	498
Use of land	per cent	per cent	per cent	per cent
Acres double cropped	.6	1.1	3.2	1.9
Difference = acres in crops	35.7	43.5	57.0	46.9
Tillable land lying out	12.6	5.7	5.1	5.9
Tillable pasture	6.8	12.0	13.9	11.9
Total tillable land	55.1	61.2	76.0	64.7
Woods not pastured	29.3	26.9	15.3	22.5
Woods pastured	4.7	1.5	.4	1.0
Untillable pasture	3.2	2.0	1.0	1.6
Farmsteads, roads, and fence rows	3.4	2.8	2.1	2.4
Muskrat marsh	—	—	.7	.5
Marsh hay	—	1.5	.1	1.0
Other marsh	—	1.1	1.8	3.4
Wasteland	4.3	3.0	2.6	2.9
Total untillable land	44.9	38.8	24.0	35.3
Total land operated	100.0	100.0	100.0	100.0
Land cash rented	7.8	2.3	.7	1.9
Land share rented	31.8	46.1	59.1	51.2
Land rented out	1.2	.2	.1	.2
Land owned	61.6	51.8	40.3	47.1

* Less than .05 per cent.

more than 18% of their land in wheat and another 16% in corn, 45% of the land on Class II farms was untillable. Farmers on the best land harvested an average of over 760 bushels of corn, 408 bushels of wheat, 107 bushels of sweet potatoes, 60 bushels of white potatoes, 84 bushels of canteloupes, 83 bushels of watermelons, 326 bushels of apples, and 207 12-quart barrels of grapes, and produced over 35,000 pounds of milk, and over 620 dozen eggs, among other crops. In contrast, farms on Class II land produced an average of only 178 bushels of corn, 50 bushels of wheat, 15 12-quart barrels of grapes, 5,130 pounds of milk, and 540 dozen eggs (Bausman 1940: 59). Not only were farmers on better land able to plant more of their land, but they had the advantage of higher per acre yields; as a result of better feed, their cows produced substantially more milk as well (Bausman 1940: 49). Farmers on Class IV land also owned more livestock than farmers on poorer land (Table 61). Class IV farms were also the most highly capitalized, with land and buildings worth an average $6,528, compared to $2,088 for Class II farms (Bausman 1940: 58).

Perhaps most importantly, Bausman's research revealed that farmers on Class II land, and presumably also on Class I land, could not make a living from farming; they averaged a $98 net loss in 1935. In comparison, farms on Class IV land produced a net income of $500 that year (Bausman 1940: 50; see also 61-66). To produce this profit, farmers on Class IV land spent an average of $293 on hired labor in 1935, compared to the $29 spent by farmers on poorer land (Bausman 1940: 70).

No systematic studies exist of the architecture and landscape of New Castle and Kent County farms in the 1880 to 1940 period comparable to Herman's studies for the eighteenth and earlier nineteenth century (see **1830-1880: Agricultural Production**). The State Historic Preservation Office maintains an inventory of identified buildings and continues to fund architectural surveys to document those buildings that survive. This information has not yet been computerized or synthesized, however, and thus could not be efficiently used in preparing this historic context. In addition to Bausman's findings about the distribution of farm buildings by tenure and condition on New Castle and Kent farms in the mid-1930s, the published censuses provided additional information, although it was generally limited to the value of buildings. Information on the numbers, functional types, and layouts of farm buildings and on New Castle's and Kent's agricultural landscape in the late nineteenth and twentieth-century has yet to be compiled.

In 1929, the average value of the land and buildings on New Castle farms ranged between $8,113 and $17,147 (Table 17). Self-sufficient farms had the lowest average value and Animal-specialty farms the highest. The farm buildings on all types of New Castle County farms were worth more than those on Kent farms. In the northern county, the range per farm averaged $3,939 for Self-

TABLE 61

LIVESTOCK ON FARMS BY LAND CLASSES, KENT COUNTY , 1937
(Source: Bausman 1940: 67, Table 44)

	Land classes			
	II	III	IV	County[2]
Number of farms	25	251	177	498
Kinds of livestock	number	number	number	number
Cows	2.1	5.4	7.4	5.8
Heifers (1 yr. or over)	.2	.8	1.0	.8
Heifers (under 1 yr.)	.1	.8	1.1	.8
Veal calves	—	*	.1	.1
Herd bulls	.1	.3	.4	.3
Total dairy cattle	2.5	7.3	10.0	7.8
Other cattle	—	*	—	*
Horses	1.2	2.2	2.6	2.2
Mules	.4	.8	1.2	.9
Stallions	—	*	—	*
Colts	—	.1	.3	.2
Ewes	—	.5	—	.3
Lambs, weaned	—	.1	—	.1
Brood sows	.2	.3	.6	.4
Other hogs	.6	.4	.7	.5
Pigs weaned	.4	.4	1.5	.8
Chickens	73.2	90.8	78.1	83.1
Miscellaneous poultry	.4	.4	.2	.5
Broilers	—	7.0	.8	3.8
Baby chicks	—	—	—	—
Turkeys	3.0	6.3	7.9	6.7
Geese	.5	.4	.2	.3
Ducks	1.0	1.5	1.7	1.6
Total poultry	78.1	106.4	88.9	96.0
Total animal units[1] per farm	4.8	10.8	14.1	11.4

* Less than .05 of an animal.

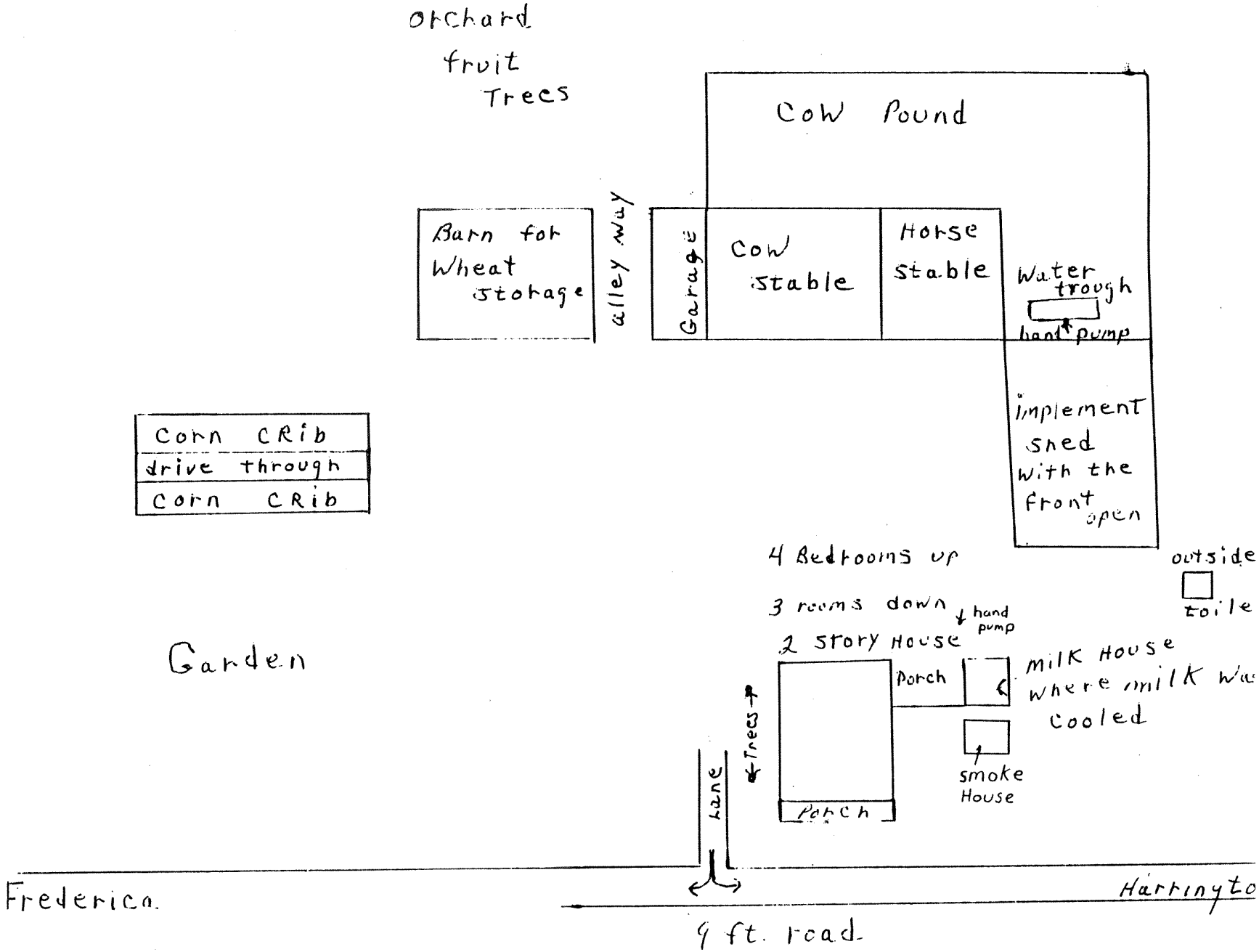
sufficient farms to $10,341 for Crop-specialty farms; in Kent, the range averaged $1,171 for Self-sufficient farms to only $4,928 for Fruit farms. In New Castle, the buildings on Dairy and Animal-specialty farms averaged between $8,300-$8,400; those on Fruit and Cash-grain farms averaged between $6,300 and $6,425; those on General and Poultry farms averaged between $5,635 and $5,650; and those on Truck farms averaged $4,500. In Kent, the buildings on Dairy and Animal-specialty farms averaged between $3,225 and $3,260; those on General, Cash-grain, Crop-specialty, and Poultry farms averaged between $2,200 and $2,885; and those on Truck farms averaged just over $1,700. The value of farm houses further illuminates the social and economic distinctions among the counties' farmers. In New Castle County, Animal-specialty, Dairy, and Fruit farmers owned the most expensive houses, valued between $3,785 and $4,180 on average. Self-sufficient farmers' houses, in contrast, were worth an average of only $2,200; those of other farmers averaged between $3,140 and $3,410. In Kent County, Fruit farmers owned by far the most expensive houses, valued at an average of $2,850. Dairy and Animal-specialty farmers' houses ranked next in value, at an average of $1,825 and $1,940 respectively. Self-sufficient farmers lived in houses worth only an average of $710, less than one-third of the average value of the house of a self-sufficient farmer in New Castle County. The rest of Kent's farmers lived in houses worth between about $1,035 and $1,560.

For his research project for "Historical Archaeology of the Eastern United States" in the spring semester, 1992, at the University of Delaware, Barry Benton visited the farm his father's family had rented in South Murderkill Hundred between 1925 and 1933. Based on this visit and interviews with his father, Benton constructed the following description of the farm:

> The farm...is located between...Frederica and Harrington. It was purchased in 1888 by the Warrington family and remained in this family until...1939... During our study period, the farm was owned by Albert Warrington, and he allowed a family which was headed by William Thomas Benton, my grandfather, to live on the farm. Since my grandfather was a tenant farmer, he paid rent for the privilege to live on the farm equal to half of the crops which he grew.
>
> The farm itself consists of a 125 acre plot of land which is divided up into five fields. In the front part of the farm is a two story, four bedroom house [see Figure 41]. The four bedrooms are upstairs, and the kitchen, dining room, and living room are downstairs. Directly beside the house are the smoke house and the milk house... The milk house, which was behind the smoke house, is a concrete block building which was kept cold by ice blocks purchased from the iceman... Behind the house, in a U-shaped formation, are six more sheds. The first shed was the implement shed. The front of this shed was

FIGURE 41

WARRINGTON-BENTON TENANT FARM COMPLEX, 1929
(Source: Benton 1992)



> open and all of the farming equipment was kept inside. Behind the implement shed were both the cow stable and the horse stable. A barbed wire fence enclosed an area behind these stables in which the cows could roam. Next to the cow stable is a garage, where they kept their wagons, and beside this was a barn which was used for wheat storage. This barn was built up on cement blocks to keep the floor dry, so that the wheat would not get damp and moldy. Finally, the last large shed, which was off to the side, was a drive through corn crib. This building allowed for quick and efficient unloading of corn from the fields because it had bins for storage on both sides of the unloading strip. One last building, which was located off to the side and rear of the house, was the outside toilet (Benton 1992: 1-2).

While not necessarily representative, the Warrington-Benton farm at least gives one an impression of the architecture and landscape of a southern Kent County farm in the period of both Bausman's study and the census farm typology.

Farm building values were also published in the censuses for the years 1910 and 1900. In 1910, New Castle's farm buildings were valued at almost double the value of Kent's agricultural building stock (Table 14). Ten years earlier, New Castle's farm buildings had been valued only 35% higher than Kent's, barely more than the value of Kent's farm buildings in 1910. New Castle County's agricultural buildings had increased in value by more than 75% in ten years, suggesting another "rebuilding of the landscape," to use Herman's term. The contrast in changes in land values supports the idea that the increase does not merely represent higher levels of inflation in New Castle. Agricultural land in New Castle County increased only an average of $7.33 per acre between 1900 and 1910; in Kent County, the increase averaged $13.60 per acre. The difference in per acre farm land values between the two counties thus decreased from $25.69 in 1900 to $19.42 in 1910. Over the same period, average farm size dropped in both counties, by 12.7 acres in Kent and 11.1 in New Castle. Thus by 1910, Kent County farms averaged one acre larger than those of neighboring New Castle, although an average 7.5 additional acres per farm in the northern county were "improved." This cycle of rebuilding followed on several decades of "slowed architectural activity" that began in the 1870s, and according to Herman, lasted in southern New Castle County "into the 1940s" (Herman 1987: 233).

Passmore has begun to document farming practices during this period in Three Centuries of Agriculture (1978). She discusses fertilizing, ditching and dyking, feed and hay crops, crop associations, cattle breeding and disease control, milk processing, sheep and hog breeding, poultry and disease control, vegetables, the use of agricultural machinery, and agricultural education. More research is needed in all these areas. Benton's research demonstrates the promise of oral history to enhance our

understanding of farming practices and life on the farm in this period. His father discussed his life on the tenant farm in Murderkill in the 1920s:

> Living on and operating the farm...were my [Barry's] grandparents and their seven children. Out of the children, there were three boys and four girls, and all of them, except the youngest girl, quit school before high school. Then they lived at home, and the boys worked on the farm, while the girls did the housework. This provided a sufficient workforce to keep the farm going without having to hire outside farm hands or house servants, as the children helped complete the daily chores which allowed the farm to survive.
>
> One of the chores...was caring for the livestock... [T]his was...a large chore as they possessed a significant number of farm animals. First, and most important, they owned approximately twenty cows, which were used almost exclusively for dairy purposes. They [sic] milk from the twice a day milkings was cooled in the milk house, and the portion which was not consumed by the family, was bought by the milkman and distributed to other houses in the area. The family also owned five horses, which were used mainly as work horses. These horses not only took the place of the modern day tractors, but were also invaluable as a source of transportation at [sic] time when cars were scarce in lower Delaware. In addition, the Benson family also possessed about fifty chickens. Although some of these chickens were eaten, they were much more valuable alive because they produced eggs every day. These eggs were worth so much that my grandmother would not allow the family to eat them. Instead, she would take them to market and trade them for things she needed around the house. Besides these animals, the family also kept a number of animals for meat purposes only. These animals included approximately four hogs, ten turkeys, and twenty ducks. They would be slaughtered and butchered by the men in the family, and then the meat was preserved in the smoke house. In addition to the work mentioned above, these animals also required daily care, as they needed to be fed, sheltered, and cleaned up after. (Cleaning up required the manure to be shoveled into piles and kept until autumn, when it was spread on the fields as fertilizer.) All of these tasks demanded hours of labor and much of the work had to be performed on a daily basis.
>
> In addition to the work necessary for the livestock, many hours of hard labor were required every day to maintain the fields. Out of the five separate 25 acre fields, two were planted with wheat, one was planted with corn, one was used as pasture, and one was planted with clover or hay. The hay or clover would be bailed in the summer, so that the horses and cows would have something to eat in the winter, and the

pasture pretty much took care of itself. This left the wheat and the corn as the crops which required the most care.

...The wheat was planted with a three horse drill, which consists of a series of discs, a mechanism which sows the wheat in the furrows created by the disc, and a blade which covers the furrow over with soil. Once it was planted, the wheat was then left alone until the following summer, at which time it was harvested. They used to harvest it with a horse drawn wheat binder, which would cut the wheat, tie it up into bundles, and drop the bundles in the fields. Then my father and his brothers would gather the bundles and put them into shocks. This means that they would lean them together in a tepee type formation, and tie them all together at the top. Next, they would bend the heads of the wheat over to form a roof over the shock, so that the grain could dry out. After a couple of weeks, when the wheat was dry, they would go back out, load the wheat up on a wagon, and take it to the local thresher. He would thresh the grains out of it, put it in bags, and then my father's family would take the bags home and store them in the barn. They would take extra bags to the market, and they would take their private stock to the mill at Coursey's Pond to have it ground into flour.

The methods they used for growing corn were much different then [sic] the ones they used to grow wheat. First, the corn was planted in the spring by a two row horse drawn corn planter. In order to use this piece of equipment, a wire with notches in it every four feet needed to be laid across the entire length of the field. This wire was then run through a mechanism on the two row planter, and the horse would then begin to pull the planter across the field. As the notches would catch in the mechanism, a corn seed would be planted. Since the planter was able to plant two rows at a time, four feet apart, the result was a square grid formation of corn plants with four foot wide paths between each row of plants in both directions. Although this decreased the number of corn plants which could be seeded, it allowed for cultivation in both directions, which was important because it is almost impossible to do a U-turn with a horse drawn cultivator. Once the corn was ready to harvest, my father and his brothers would then cut the corn by hand and tie it up in shocks... After a couple of weeks, when the corn was dry, they would then husk the corn right out in the field, load it onto a wagon, and drive it into the corn crib where it was stored until it was sold.

In order to complete these tasks, the farmers had to work extremely long days. For my father, a typical day in the summer would begin at around 6:30 A.M. After a hearty breakfast, he and his brothers would be in the fields by 7:00 and they would work until about noon. At this time my

grandmother would ring the dinner bell and they would all come in for lunch. Once they finished their meal and took a short nap under the shade trees, they would resume their work at about 1:30 P.M. and keep working until dark. Then they would eat supper, clean up at a wash basin, and retire to bed. This occurred six days a week throughout the entire planting and harvesting season.

During the short winter months, days were still long as the men took advantage of free time, which used to be spent in the fields, by hunting and trapping. In addition, they still had to take care of their livestock, and repair and upkeep the farm equipment (Benton 1992: 2-6).

As important as these family stories of farm life and work preserved in memory and transmitted orally are biographies of individual farms reconstructed from documents, surviving structures, and archaeological evidence as well as the oral history (see also **D. Contributions of Previous Archaeological Research on Farmsteads, 1830-1940**).

Tax assessments for Robert J. Morrison's White Clay Creek farm near Ogletown (Robert Ferguson Site) between 1881 and 1901 document the presence of a frame house, a frame barn, and a tenant house on the 140 acre farm. As the family did not make any capital improvements to the farm during this period, the farm's value declined from $8,640 in 1881 to $4,600 by 1897. Morrison owned no taxable silver plate, but his livestock were valued at $866 in 1881, $985 in $1893, and at only $280 in 1897. Between 1920 and 1943 the farm's owner, Jasper Lynch, lived in the main farm house and his parents resided in the tenant house (the Ferguson site).

Charles Lynch, Jasper's nephew, recalls much about both of the structures present and of the land use of the property during the period 1920-1960. During this time a small barn was present... The barn has a drive-in shed for a wagon and two box stalls for horses or mules with a small second story for storage of animal feed...

Also present during the period 1920-1943 was a "very old" chickenhouse... The only other structure present within the yard areas was an outhouse, present at the intersection of the eastern fence row and the edge of the yard. As in other rural locations, the privy was dug out periodically, and the contents were spread over the adjoining field.

Mr. Lynch stated that the crops raised during this period were very similar to that described for a much earlier period, i.e. 1830-1860. Cereal grains, principally corn, wheat, and alfalfa were the most important crops grown throughout the period, providing a fairly stable income. His uncle, like many farmers in the area, practiced extensive truck farming

> of fruits and vegetables. During the growing season, daily trips were made...transporting these goods to the markets in Wilmington. The income from this provided the "get ahead" money for the family (Coleman et al. 1983: 17, 19, 22).

In 1874, Arnold Naudain, Sr. of Mill Creek Hundred bought a 111 acre farm near Christiana in White Clay Creek Hundred for $4,000 (the William M. Hawthorn Farm). Naudain and his family lived in the frame farmhouse, farmed the land and grazed livestock, but the 1880 Census of Agriculture reported the farm's value as $6,000, $4,000 less than its recorded value ten years earlier. "Naudain...introduced sheep to the farm by 1880, but dairy farming was still the major agricultural occupation; it was recorded that Naudain produced 1,000 pounds of butter in 1880" (Coleman et al. 1984: 63). Through the end of the century, the Naudain farm "rated in the upper twelve percent of the taxables in the Hundred" (Coleman et al. 1984: 63).

In 1898, Arnold Naudain died, and his estate was inventoried. The house's furnishings and Naudain's personal effects were listed summarily under "Goods in House," but the livestock and farm tools and equipment were carefully enumerated and evaluated. At his death, Naudain owned four hogs and four shoats along with four horses. Corn and oats remained in the fields, 200 bushels of wheat and hay were stored in the barn, and corn and other "sundries" appeared in the granary. Although he owned no cows, Naudain's inventory included "Dairy Fixtures" along with a cornsheller, a grain fan, one-half an interest in a binder, a Randall Harrow, plows, harrows, and cultivators, a mowing machine, a horse rake, a farm wagon with harness and hay rigging, and for transporting the family, a buggy, a dearborn, and a carriage (Coleman et al. 1984: 242).

The following year, Naudain's heirs sold the farm, and the new owners rented it to tenants. A few years later the house burned, and a new frame house was soon built. Oliver Lynam bought the farm for $6,000 in 1917. Lynam purchased the farm for his son, who lived there with his family for the next decade. Tenants then occupied the farm through the early 1960s. Richard Lynam remembered that when he and his family moved to the farm in 1940, "there were six standing structures...: the post 1902 house, a large frame barn on a one story stone foundation, a frame granary, a stone springhouse, an "old privy," and an "old chickenhouse" (Coleman et al. 1984: 65, 67).

Census data and the published results of Bausman's studies have allowed us to construct a general context for agricultural production in New Castle and Kent counties between 1880 and 1940. Nonetheless, supplementary research will be important in delineating geographic regions characterized by differing agricultural economies, production strategies, and thus farm types within each county across the period. For example, Heite (1992)

reminds us of the esssentially industrial nature of many northern New Castle farms throughout much of the nineteenth century, especially those supporting industries such as DuPont's powder works. Information on individual farms, like that assembled by the archaeologists studying the Morrison-Lynch and Naudain-Lynam farms, is required to accomplish this as well as to discern the range and nature of variability within the regions. Analysis of probate records, individual farm accounts, and other personal and business papers, along with a program of oral history research, would provide especially significant information. Conducting this research requires a program of public participation, as Delawareans themselves are the keepers of the oral traditions and memories. They also hold in personal collections family papers, photographs, and accounts that supplement those in the collections of the State Archives and the Historical Society of Delaware. Study of the publications and records of the Delaware State Grange and its affiliated organizations would also enrich our understanding of agricultural production, the agricultural economy, and the many complex factors affecting them. Manuscript and published records of federal agencies--the Bureau of the Census, the Department of Agriculture, the Works Progress Administration, the Farm Security Administration, and the Civilian Conservation Corps, among others--have yet to be mined. Their accessibility at the National Archives suggests that a survey of these records at the least should be a high priority in any future research plan. Surviving farm buildings and landscapes, and the collections of the Delaware Museum of Agriculture will assist in developing further the material context of agricultural production. Finally, of course, the continuing archaeological work on sites associated with this historic context in turn will contribute to its enhancement.